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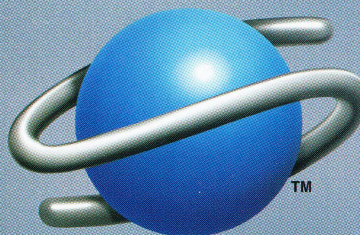
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## SEGA SATURN™

IT'S OUT THERE.



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Advertising: advertising@mondo2000.com

MONDO 2000 is published quarterly for \$24.00 for five issues by

Fun City MegaMedia, 2615 Shasta Rd., Berkeley, CA 94708-1921.

Application to Mail at Second-Class Postage Rates Pending at Berkeley, CA and additional mailing office. POSTMASTER: Send address changes to: MONDO 2000, P.O. Box 10171, Berkeley, CA 94709-0171. Printed in the USA.

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MONDO 2000

P.O. Box 10171

Berkeley, CA 94709-0171

Telephone: 510.845.9018

Facsimile: 510.649.9630

Subscription rates for five issues:

U.S. \$24 U.S. Funds

Canada \$27 U.S. Funds

International \$50 U.S. Funds

MONDO 2000 has an electronic conference on The WELL

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For more information on The WELL call 415.332.4335 (voice line).

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## SPRING • SPRANG • SPRUNG



while we were  
creating this issue.

Now Summer's here—time  
to interface the Sega Genesis to the

Cuisinart and whip up some Super Mario gazpacho. Or not. Amidst the hoopla of joy toys and FX tools, there's a genuine aesthetic. A standard beyond corporate canons of success, target markets, and the thick fiber optic web of lies. The simulated dust of invention will settle and we'll be left with ourselves. Digital masturbation—OK, but only if the orgasm is real. Don't get bamboozled by a thousand polygons and vortices. The world is more than swirly pink marble turning in space. Clear a path through the babble and confusion of the great computer bazaar. Just uncoil, put down the cellular, and smell the roses. The air is fraught with pheromones. So cudgel your inner curmudgeon and come frolic in the fields of Eros.

Heide and Tom

#### COVER & FASHION CREDITS:

Photos by TOM PITTS

Make-up by RAUL. Hair by VANJAR LANDER

**COVER GIRL:** BARBARA LIU

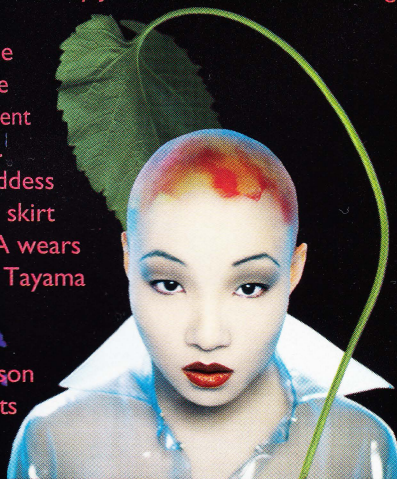
**FASHION STARRING:** **HANNAH SIM**, a bald mutant alien filmmaker living in LA, is currently making a surreal thriller and modeling (look for her on MTV). **BARBARA LIU**, a self-proclaimed muse, bearer of a simian crease, and a Scorpio, is a virtual artpiece. **PERRY BELLER**, a tight rope walker, is into the macabre and works with plastics. And **STAR** is a super-beautiful, super-model (c/o LOOK MODEL AGENCY). **P. 76**, HANNAH wears Virtual I-O virtual reality glasses and strait jacket by St. Psyche.

**P. 78**, BARBARA wears a puckered sleeveless lavender dress, and lizard jean jacket and shorts by Atsuro Tayama, pink iridescent lugnut boots by Utility and biker boots by NaNa. STAR wears a Mona Lisa dress by Jean-Paul Gaultier and King Louis boots by El Dante.

**P. 79**, PERRY wears a blue skirt by Label Whore, blue space shirt by Tasty, and patent lug tongue boots by Utility.

**P. 80**, PERRY wears a goddess T-shirt and orange plastic skirt by Lip Service. BARBARA wears a plastic jacket by Atsuro Tayama and power panties by the House of Field.

**P. 81**, STAR wears a Gibson Girl jacket and tattoo shorts by Jean-Paul Gaultier and crisscross shoes by NaNa.





## BOUQUETS

We'd like to thank all our artists for seeding the garden of visual delights. Thanks **John Borruso** (another indelible spine)—you're the best; **Wendy Brierley**; **Tim Brock**; **Jesse Fisher** (thanks for the collaboration); **David Fremont** for Spidereggs; **Monte McCarter**—p.s. FringeWare looks great; **Mike McGovern**; **J.K. Potter**—truly inspired; **Barbara Traub** (welcome to SF); **Lior Saar** for his unending devotion; **Joseph Sorren** (congratulations on getting the Kroker illustration you did for MONDO #13 accepted into *Communication Arts*); **Kate Schmitz**; **Kim Weller**; **Steve Vouble**; **Todd Wolfen**; and **Meigan Zia** (who is both smart and beautiful).

## THANKS A BUNCH

We gratefully bow to our Knight Errant, **Steve Beck**, for making the 8100/100 PowerMacs possible! Our gratitude to **Colleen Neumann** for the **Microtek 45t** slide and transparency scanner which is indispensable. We will be testing **Agfa's** new **Arcus II** flatbed scanner in our next ish. Is it an act of God?—thank you to Saint Anonymous at **Adobe** for the software and the **Adobe Premiere** manual from **Consolidated Software SVCS**. Speaking of software, **Fractal Design** sent us **Painter 3.0** after a bit of knee bending and outright begging, but **Kristin Keyes** of **HSC** (hi John!) sent us the image manipulation software **Convolver** and the landscape creating software **Bryce** lickity split. Also thanks goes to **BelInfinite** for the great **Adobe Illustrator** plug-ins; to **Ashley Sharp** of **Virtus Corp** for Virtus VR the 3D world building kit which came with the **Alphabet Rooms Gallery**; **Tom Corbitt** at **Alien Skin Software** for the **Blackbox** photoshop plug-ins; and **Three D Graphics** for **PixelLoom**, software for texture building. Met **Kurta's** Marketing and Communications Director **Richard Burger** at MacWorld SF and asked him for a 12" x 12" Kurta input system. He sent the cute **XGT 6" x 8"** (allowing for room on my desktop). The pen & tablet system is intuitive, great for pressure sensitive software and can also be used like a palmtop—but do check out your competition, Richard—**Hitachi's** pen looks, well, cyberific.

Also thanks to **Joseph Runde**, **Terence McArdle** & **Joseph Chmill** of the **Eastman Kodak Company** and **Canon's Jim Rose & Chuck Westfall** for the hands-on demo of their three new digital cameras. We'll take one of each, please! Thanks to the helpful people at **PeachPit Press** (Trish, Paul says hello); to **Erika Bauer** at **Publish**; **Bobbie** at **Atlantic**; **Leah** at **Zoo Entertainment**; and to **Marilyn Young & Jennifer Sandretto** of **Technology Solutions** for trying so hard to get us the new **Sony MD** data drives (Manny, take their calls, will ya!!)

## MORE BOUQUETS

Special thanks to **Louisa Spier** at **The Great American Music Hall** for helping out with the Bob Ostertag interview; **Wendy** at **NaNa**; **Alex** at **Onward Kashiya**; **Jay** at **Look**; **Michael Morgan**; digital artist **Amit Zohar** for the FED-EX package and his generous support. Amit, send HSC your Bryce Renderings! **Dean 7** for the missing pieces. Our personal thanks to **Keith**; **William**; **Brother John** for the juice and philosophy; **Hannah Sim**, **Barbara Lui**, **Cintra Wilson**; vegan chocolate cake; **Charles Ostman** (for acknowledging that Tom is trendy); **Karl O'Melay**, **Lior Saar** (as himself), **Ladd McPartland**, **Barbara Traub**, **Frank Czajka** (Heide's psychic doppelgänger); **Meg Bowles**; **Scott Coleman**; **Nathan Moody**; **Kathy Acker** (for going web surfing with Heide); **Stephanie Smiley**; **Stacie Wolfe** (say yes, already!) and **Bob Hoffman**; **Carrie Svingen** at **Ryko** for the tix; And a belated thanks to **Zoe Kroll** at **The Lab** and **Rupert Jenkins** at **Cameraworks** without whom Orlan would have never appeared in San Francisco. Finally, we salute **Bart Nagel** for having set the standard and wish him happy trails.

# helium

the dirt of luck  
lp•cd•cs

# baiter space

wammo  
lp•cd•cs

# chavez

gone glimmering  
lp•cd•cs

# railroad jerk

one track mind  
lp•cd•cs

# blues explosion

experimental  
remixes  
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lp \$8 • cd \$12 • cs \$7 • cdep \$7 • 12 inch \$7  
matador records 676 broadway nyc 10012





# M2K

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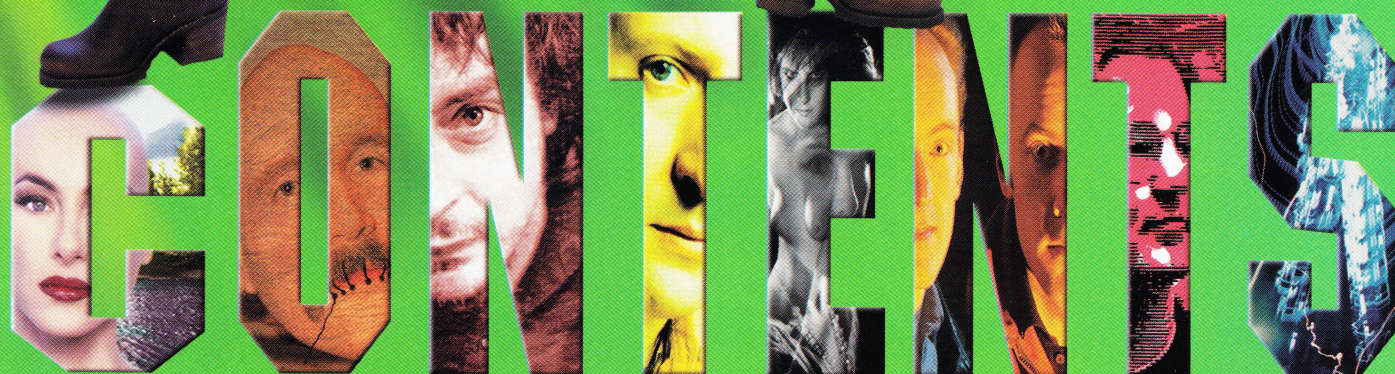
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PAUL McENERY RECOVERS  
FROM THE HORROR OF  
VIDEO GAMES







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**From: Richard W. Wright**  
**<76063.2545@compuserve.com>**  
**To: Paul McEnery <editor@mondo2000.com>**  
**Subject: mondo**

A little story to tweek your implants      infringe your  
text and level your meme. For your teaming snarl of  
right lawyer copies to salivate on and search endless  
pop rags for emergence of the stolen word. To  
appropriately entangle dis and abuse      and  
hopefully amuse      but mostly...  
enjoy!

G-B-G GAUTCH  
=ABQ, NM

oh      and please tell Bart "not  
to worry" about his recent 'about  
face' on appropriations 'cause the  
vascillations ain't over yet

#### PLANCK'S DOWNER SYNDROME

young turks swiftly spotted the  
metalevel meme  
as a snarling team of uniformly  
protective implants  
read the message 'moldies  
seceding the bopper'  
to form their own limposphere

pursued by snarling robot protect  
ants  
flying forward in UICs  
under direction of the imple ants  
defending the patented skin  
and wanting to shove circuitry up the turks  
half-assed parallel computed way  
the young turks dive into the coin of phrase  
into the next big thing  
riding bleu veins on chipmold  
where the ants can't follow  
and flickercladding through direct transmutation  
they emerge like other creatures  
like submoles through wormholes  
lurking in the orgone time at the corner of his eye  
the bopper grows suspicious  
knows he's being watched at the  
size scale of direct quantum think  
knows they'll take his idea awards  
to transmute their own  
before they reach the level meme



and they would  
but the turks can't translate  
matter to energy and back again  
without a phaseshift plan  
so they gather strange quarks into a sweatlodge  
where ritual decision is made  
to forego messy human interaction  
they'll merge together in symbiotic parasitic fusion  
on to the eyeglasses of the unwitting host  
then sink through his temples      microprobes  
into the neural masses  
to monitor EM fields for fast flashes  
of the bopper's genius  
like a guilt-free phone call

but the moldy turks must now be  
careful  
at the level form of quarkbag  
matter  
they're susceptible to the ants  
and must remain near their holes  
which of course keep moving  
they send up flying wings  
flickercladding the immediate  
atmosphere  
in surveillance of the impending force  
using genetic algorithms to search the  
huge parameter space and then...  
'signal sounds'      signs of  
proximate ants  
but unaware of the turks as yet  
a hundred trillion femtometers  
away  
patrolling somewhere behind the ear  
still a nervous chill

as the ants could converge in a nanosecond  
yet      plenty of time when you think about it  
assuming the winged things remain intact  
as the turks settle in cluster around uvvies  
to watch for incoming strange attractors  
limpcorders in hand      gathering appropriately  
cause hey      we're all in this together

suddenly andrea comes through a hole  
with a quarkbag of europium  
and a dimpipe with programmable scarves  
like jellyfish tentacles  
to pleasantly violate the sanctity of the skin  
everybody plugs in  
to ease tension on the neural ganglia  
everyone involved in an interspatial party



Iggy Pop  
size 8½



CONVERSE.





thrown into a wholly different basin of attraction  
someone leans in to switch the workings to dimtrol  
limpcorders    uvvies    flying wings and all  
under the control circuits of the dims  
while the turks settle into the endless easy

but the dims aren't all that smart  
for example    they had no idea that they'd  
waited years for this opportunity  
but also    they had no idea that imple ants were  
now using elastic mass to cut off solar radiation  
with no light to eat  
the enter imipolex surveillance processor wasn't  
flickercladding like it used to  
and protect ants were just waiting at the lobe  
in UICs...    for the last wing to fall

the moldy turks were otherwise  
involved  
riding a lanthanide particle progression  
they were nesting in a wave-like  
motion  
hundreds    merged to the point of  
identical DNA  
being meaningful is out of the picture  
here

meanwhile the bopper    at his  
universal viewer  
was unaware of the scene unfolding  
he still felt a sense of being violated  
but hadn't seen a peripheral flash in  
hours  
the imple ants had chosen not to  
inform him  
so he wouldn't blow their trap  
they thought    besides    these  
are just stoned freaks  
we can see the crazy shit they're doing  
they deserve what they get

waiting at the lobe were protect ant commandos  
they know exactly what to do  
exterminate the TAZ in one fell swoop  
using laws with linear equation  
to protect the dictatorial scheme

a call comes in from 'direct matter control'  
says the bopper's getting sleepy  
fear is    he'll take off his glasses before the curtain falls  
order is    place a nanokludge chip at the  
base of his skull    inject a stimulation  
it'll later come off in the shower

it works  
the bopper continues writing about  
energy densities    such that a thousand decimal places are  
energy densities    such that a thousand decimal places are  
energy densities    such that a thousand liminal places are  
being experienced by the turks  
someone pulls out a spraycan of strange quarks  
warping and flexing the entire nest  
as the last winged thing turns a pale blue  
and falls to the fiftieth degree...  
the snarling ants move in

### So you think I was just kidding, eh?

For all of you MONDO readers out there who were perhaps thinking that some of the technical details covered in last issue's "Total Surveillance" article were just fluffy talk for a cyber rant... well, think again. Perhaps the most telling aspect of the automated information filtering and detection technologies currently being developed is in the area of automated digital photographic feature recognition.

Why is this interesting and how will it make for a Total Surveillance Environment? Even as this letter goes to press, a bill is now being debated in Congress which will essentially require Internet service providers to allow instant, non court authorized access to all email and internet data transmissions. Ostensibly this is to counteract such abuses as child pornography information being provided on the Net. Remember the rash of supposed "child porn" rings that were "discovered" some months ago putting this sort of material on the Net? This has suddenly become the politically viable method for selling the concept of violating basic rights of electronic privacy as a legally sanctioned activity.

One of the new "currencies" of the near future will be various encrypting schemes that can disguise encrypted files in a way that will not be obvious, or for that matter, even detectable. It has been the long stated goal of the NSA to require that all forms of electronic encryption be registered and have a "back door" key that they can use to inspect the contents of an encrypted file. The so-called Clipper chip experiment was something of a trial balloon to see how the public would react.

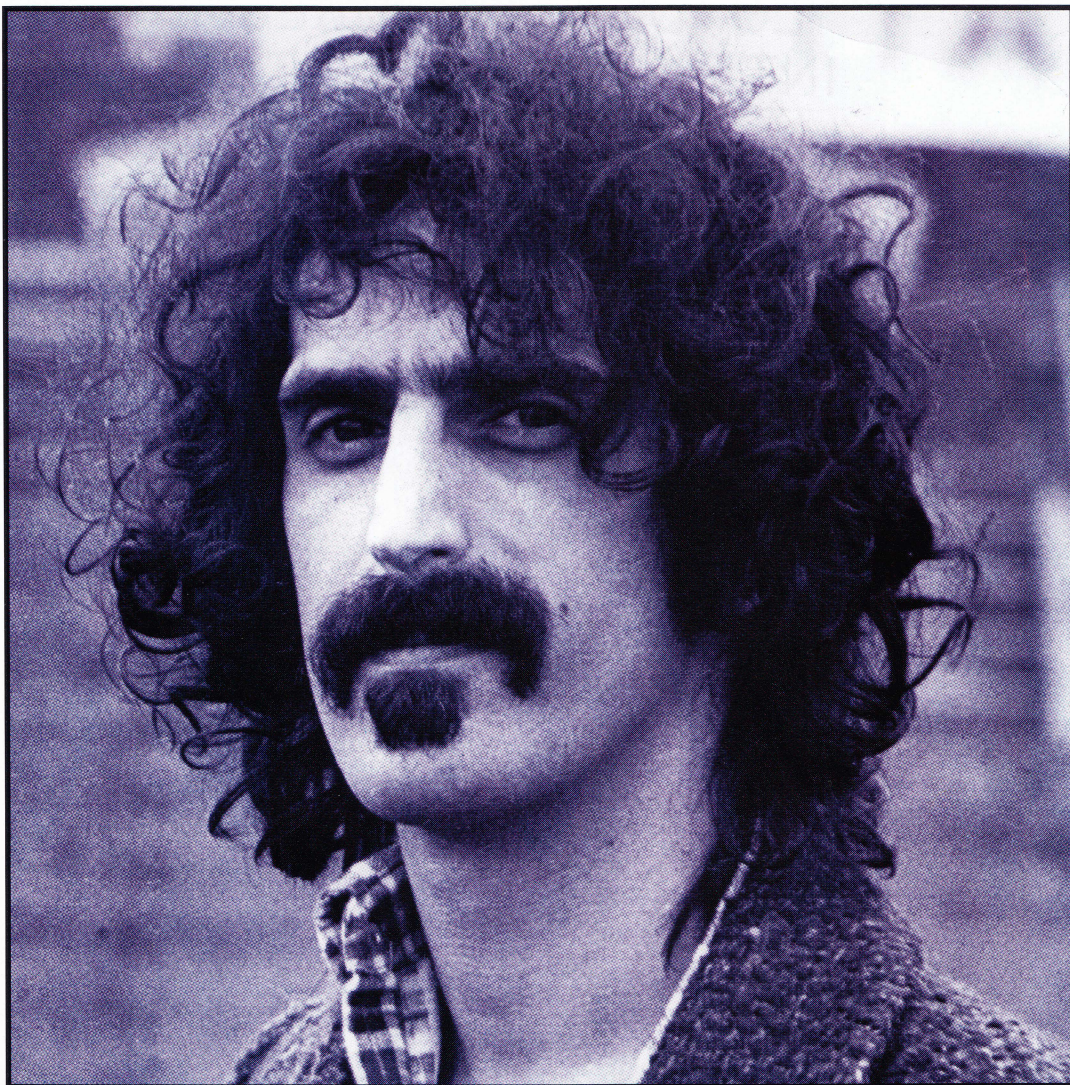
Amongst some of the most interesting potential options for future "stealth" encryption methods will be



Illustration by Wendy Brierley

continued on page 118





**"You can't write a chord ugly enough  
to say what you want to say sometimes,  
so you have to rely on a giraffe filled with whipped cream."  
—Frank Zappa**

## **Frank Zappa on Rykodisc**



Photograph courtesy London Features International.  
FZ, Zappa, Frank Zappa are marks belonging to the Zappa Family Trust. All rights reserved.  
© 1995 Rykodisc.  
<http://www.shore.net/~rykodisc>







# ALDO

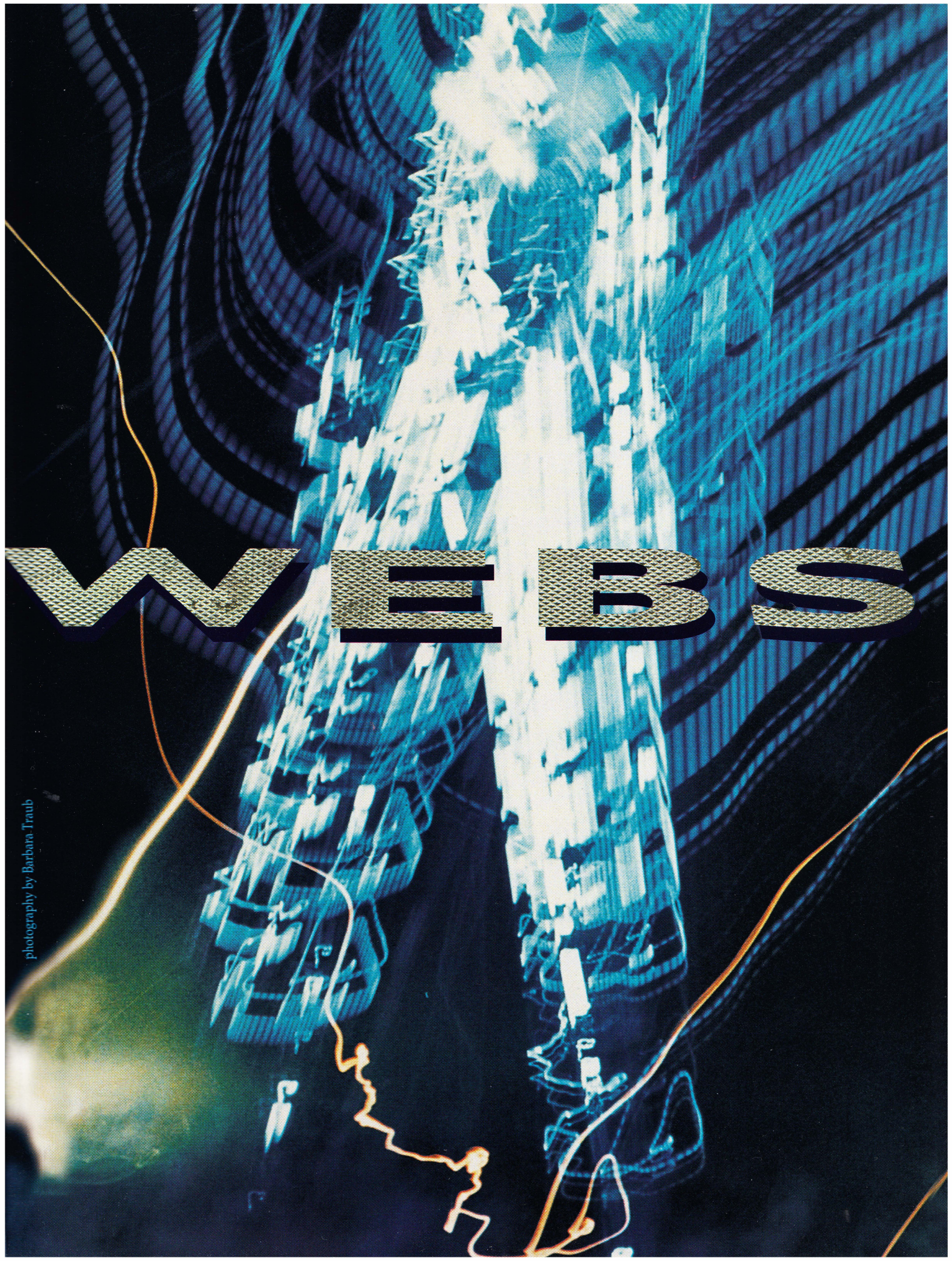
We are all obsessed with high fidelity.

On the channels of our consoles, equipped with our tuners,  
our amplifiers and our baffles, we mix, regulate and multiply soundtracks  
in search of a faultless music. Is this, though, still music? Where is the  
threshold of high fidelity beyond which music as such would disappear? Not for lack  
of music, but for having stepped beyond this boundary. Disappear into the  
perfection of its materiality, into its own special effect, its original  
essence forcibly absorbed into a hyperreality that effaces it.

Ecstasy of musicality procures its own end.

Jean Baudrillard,  
Pataphysics of the Year 2000





# WEBS

photography by Barbara Traub



NON

BY SPIROS ANTONOPOULOS

LINEAR

MUSIC

Music has been trapped in linear notation and linear tape. What follows is a sampling of software tools that will help progress it out of this stasis. These algorithmic sandboxes may well be the next revolution in music. Each holds the potential to germinate fantastic new growth in the fertile gardens of hypermedia sound.



## BlissPaint

Imaja (Mac)

and

## FracTunes

Quanta Press (DOS)

These are kaleidoscopic graphics generators, visual sandboxes, which can interface with MIDI or direct audio input to manipulate and transform the images. This synaesthesia is an evolution of the 60's light organ and allows the ambient hypermedia perma-



culturist a viaduct into the visual arena. Now we can hear light and/or see sound.

BlissPaint spews out densely vivid and entrancing waves of color and light. It's actually an animated painting suite consisting of three major elements: Scribblers, Distributors, and the especially vibrant Color Synthesizer. These modulators make this software a must for serious hypermedia trippers.

FracTunes accomplishes a similarly styled synaesthetic ecstasy, but for those on the DOS bandwagon. Using 16 colors very cleverly with a fractal metaphor, it can create slideshows that can be modulated via MIDI. Tweaking the lightshow requires a wee bit of

proficiency with the resident command language, but hey, it is DOS...

*Imaja*, PO Box 6386, Albany, CA 94706. 510.526.4621.

800.294.6252

*Quanta Press*, PO Box 8044, St.

*Paul*, MN 55108. 612.379.3956.

"A main difference between the algorithmic and linear approach to music is the function of the composer as an ego. In the linear form, you've got primarily one mind determining the structure of events. Nonlinear environments can provide collaborative and collective control."

— Ray Guillette,

*Sound Traffic Control*

## EWORKE & SYMBOLIC COMPOSER

Tonality Systems (Mac)

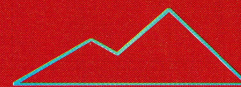
Bizarre and complex algorithmic programming languages and scientific soundscape modeling

environments.

Symbolic Composer creates music that represents what you see using computer graphics, such as autocatalytic reactions, chaos and fractal equations, solar systems, Brownian noise, number theory sequences, neurons, Fibonacci series, morphs, and transformations. You can even listen to an audio model of the AIDS virus. All this wraps together with ordinary composition operations from the past 400 years of music history into one helluvan aural sandwich.

EWorks is a streamlined subset of Symbolic Composer's more popular features, with an English-like scripting language.

*Symbolic Composer Tonality Systems*, Tob. A-laan 307 1111 JX Dieman Amsterdam, Netherlands. +31-20-6957-880. *EWorks Innovative Solutions*, RR #1, PO Box 70 D-1 Richmond, VT 05477. 802.482.3464.



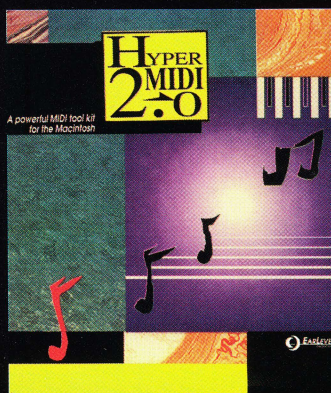
## HMSL

Frog Peak Music (Mac, Amiga)

A general purpose programming environment built on top of the programming language Forth. A transplant over fifteen years old, this software is ugly and stale, although allegedly quite powerful. Only for the headstrong.

*Frog Peak Music*, PO Box 1052,





Lebanon, NH 03766. 603.448.8837

## HyperMIDI

Earlevel Engineering (Mac)  
If you're already comfortable programming with Hypercard, Supercard, and Director, you really don't need to learn another language. This module adds dozens of XCMD's for MIDI input and output. It has enhanced graphics and branching tools for authoring environments like Hypercard and Director, as well as the suave option of compiling your hypermedia sound garden into a stand-alone application.

Earlevel Engineering,  
21213-B Hawthorne Blvd.,  
Suite 5305, Torrance, CA 90509  
310.316.2939.

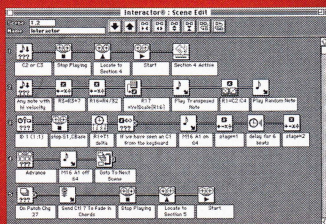
## INTERACTIVE MUSIC SYSTEMS

Book and CD-ROM featuring the program Cypher. By Robert Rowe, MIT Press (Macintosh)  
An exhaustive, enlightening, and entertaining romp around the gardens of possibilities for permacultural explorations into acoustical hypermedia. Exploding with excellent forays into the vast mathematical

gardens of algorithmic delight.

Surveys pioneering artists and their works, interactive music systems, computers and software used, and the future of artificial intelligence and neural nets in music. Finished pieces are also included (one track even features Anthony Braxton). Cheap, hands-on, thorough, and fun.

Interactive Music Systems,  
MIT Press, 55 Hayward Street,  
Cambridge, MA 02142-1315.



800.356.0343.

## INTERACTOR

Mark Coniglio and Morton Subotnick (Mac)

If you want to experiment with TAZzier rave/chill events, or you're the kind of adventurous techno musician who wants to dynamically expand your live performances beyond playing along with DAT tapes and stale sequences, try out Interactor.

I'd recommend this program over Max if you want to explore musical hypermedia but don't want to be bogged down in cumbersome arcana. Max's scope is larger and more algorithmically flexible; however, after playing with several hours of tutorials for both Max and Interactor, the latter is simply

more fun (and easier) to explore. You can get creatively juiced without any of the headaches of obscure geek fetishism.

Interval Music Systems,  
12335 Santa Monica Blvd., Suite  
244, Los Angeles, CA 90025.  
310.478.3956.

KINETIC MUSIC  
MACHINE, MELODIA  
PRO, and MELODIA  
TABLE SEQUENCER  
Software Tools for Artists (DOS)  
Software Tools for Artists  
publishes some of the more  
revolutionary MIDI algorithmic  
sequencers for DOS.

Kinetic Music Machine  
offers real-time algorithmic  
manipulation of sound with  
an entertaining patcher meta-  
phor. It claims to be a "direct-  
manipulation meta-language,"  
which puts it about halfway  
between a music programming  
language and a video game.

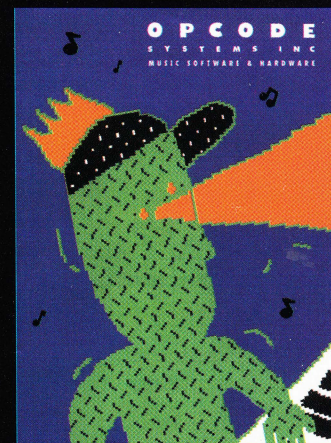
Melodia Pro uses a spreadsheet metaphor for its algorithmic scripting environment. Step sequencers and random generators are patched together while the music is running in real time and modifications occur on the fly. It can interpret any ASCII data as compositional data to color the sounds and the effects into ambient-styled soundscapes. You can even use DNA sequences as raw data.

Table Sequencer Module has a rhythm generator based on a virtual ball bouncing within a

confined space.

All three packages are  
available together as the  
MIDI Algorithmic Suite.

Software Tools for Artists,  
718 SW Alton Circle,  
Port St. Lucie, FL 34953.  
407.340.0633  
800.900.3070.



## MAX DEVELOPMENT PACKAGE

Opcode Systems (Mac)

This real-time object-oriented programming environment is a behemoth hypermedia construction kit for sound gardens.

You write patchers using graphical objects and MIDI events. Includes an excellent library of prefab patchers, like one for Mattel's PowerGlove.

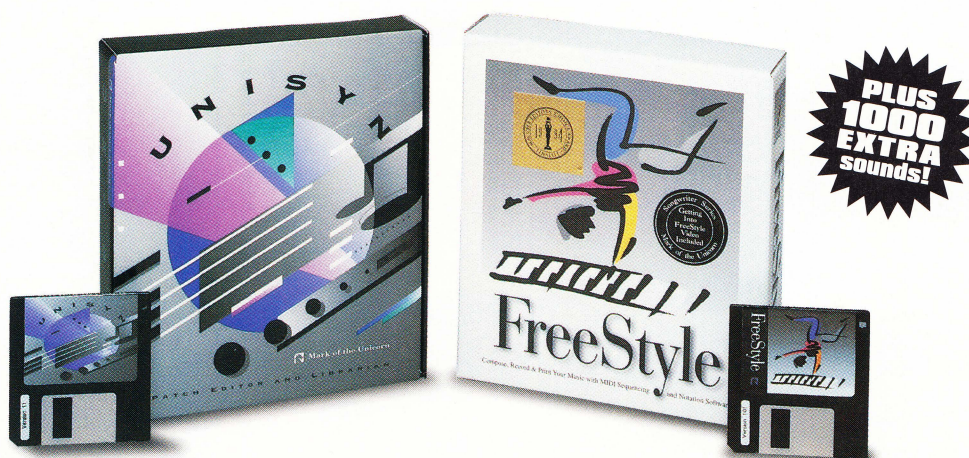
The learning curve is steep and the graphical interface can be a bit awkward and bland, but once you grok its structure, only your imagination (and computational horsepower) sets your limits.

Opcode Systems, Inc., 3950  
Fabian Way, Suite 100, Palo Alto,  
CA 94303. 415.856.3332.





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# TUNING HUM

by Craig Anderton •

## You're the world's greatest unsung composer

The problem is to translate the great stuff you hear in your head into reality. But now clever software and ever-improving tone generators mean if you can hum a few bars, you can not only fake it—you can orchestrate it.

A MIDI sequencer can memorize a series of MIDI messages, then play back those messages to MIDI sound generators, thus serving as a kind of high-tech player piano. The catch: you have to get MIDI data *into* the sequencer. Usually this requires a keyboard, but now there are other ways.

**Autoscore for the Mac or PC** (\$150 from Wildcat Canyon Software, tel. 510/527-5155) converts your humming or singing into MIDI data. Of course, once the data's in the sequencer, you can edit it—transpose your alto voice part into a bitchin' bass part, or clean up shaky timing if you want.

On the pro level, **Opcode's StudioVision 3.0** (\$995 from Opcode, tel. 415/856-3333) can also convert digital audio into MIDI data, but takes matters one step further. If you edit the converted MIDI data (transpose, change start time or duration, add dynamics, etc.), the digital audio itself can reflect those changes. This is cool 'cause it speeds up editing digital audio (and unless you're easily satisfied, you probably *will* want to make some tweaks). It also lets you use *one* set of tools to do *two* functions—always a good thing if you're involved in a right-brain intensive activity like composition and don't want to switch back to linear thinking.

Illustration by Tim Brock

"The basic history of Western music involved the development of a tonal system and its destruction. Did anyone ever find the "right" notes? Music is more than a series of frequency events whose relationships are determined by theory or aesthetic whim. I'm interested in the quality of sound itself. The way sound *sounds*. The computer gives me direct control of the sound creation process and allows me to manipulate it with dexterity. My composition can be more than notes written on paper; I can hand you a DAT and say 'this is the sound of my music.' "

—Erik A. Dahl,

Comatonse Recordings

Artist / Programmer



The problem is to translate the great stuff  
you hear in your head into *reality*





*"utterly sublime - music that can boom across the biggest dance floor, soothe an Upper East Side soiree or provide the sonic backdrop to a transcontinental cinematic drive"* -

Paper

*"filled with sexual tension...Vanessa ekes out every ounce of emotion with her provocative vocals. At once romantic and feminist in nature, this music may excite you, it certainly will soothe you"* - CD Review

# Vanessa Daou

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## PC VS. MAC

So what computer are you going to use for your sequencer? Music technology aficionados have always regarded the PC as a poor substitute for the Mac, and with good reason: the Mac has the best pro-level music software, and the slickest operating system. Recently, QuickTime 2.0 took the important step of integrating MIDI and an adequate set of sampled sounds, so you don't even need an external tone generator for instant music-making.

But Apple may have sat on its laurels for too long and gotten complacent. Microsoft hopes that Windows 95, the first OS written specifically for multimedia (notwithstanding the Amiga, which tended to use hardware for tasks that are virtualized in Win95), will become the platform of choice for digital audio. Their ammunition: they've built in the Open MIDI System (a MIDI operating system developed by Opcode and supported by umpteen zillion third party companies) to insure smooth inter-application communication—something Apple tried to do with MIDI Manager, but bungled badly. Windows also offers true multitasking, and includes several audio and video data compression algorithms. Add a couple of relatively inexpensive cards for digital audio and video capture, and a PC running Windows 95 essentially becomes an audio/video studio in a box.

So is it time to ditch the Mac? Well, try this with a PC: Deck 2.2 from OSC (tel. 415/252-0460) can run on a stock PowerMac 8100 and generates 24 tracks of digital audio—no extra hardware or software required. Sync their Metro sequencer to Deck, and you have pro-level integrated digital audio and MIDI data recording for close to cheap. Don't have a PowerMac? Deck will also run 6 to 8 channels of audio on AV series Macs, again with no extra hardware. I've

even used Deck on a IICI, but this needs a digital audio card such as one of the Sound Accelerator boards from Digidesign (tel. 415/688-0600).

## THE END OF DWEBBY SOUNDS?

So you've recorded a bunch of MIDI data into the tool of the audio elite, the Mac, or (ironically) the computer "for the rest of us" (the PC). Now you just need a way to play it back.

PC fans traditionally use sound cards like the original SoundBlaster, which was based on FM (this is a technical term that means "real dweeby sounds"). Newer cards have progressed to wavetable synthesis, which basically "freeze-dries" a piece of sound and plays it back. This is as realistic as—well, playing a guitar with the exact same force, using the exact same pick angle, on every single note.

Rather than using sound cards, Mac fans generally opt for a MIDI interface coupled to an external sound module. This has the advantage of (generally) more realistic sounds, easy upgradability (just replace the sound module with another version as technology improves), and more sophisticated sound editing options. PC jockeys are discovering this option as well.

The latest modules, such as the ultra-cool MU80 (approx. \$800) from Yamaha (tel. 714/522-9011), are compatible with the General MIDI (GM) standard instrument set. There's a whole subculture of standard MIDI files sold commercially and available for downloading from services like CompuServe and AOL, and most of these are GM-compatible, meaning that the General MIDI sound module "knows" when a particular track should play back as (for example) a piano and when it should play back as a trumpet. External sound modules are getting less expensive, better-sounding, and



more flexible all the time; the X5DR from Korg (tel. 516/333-9100) retails for \$850, fits in a half-rack space, includes a built-in computer interface, and can play up to 64 notes simultaneously. So there.

### BUT I NEVER WANT TO HEAR ANOTHER SYNTHESIZED SAX AGAIN!!

Fair enough. After all, synthesizers were originally intended to make entirely new types of sounds, but most musicians missed the point and tried to emulate acoustic instruments—and in general, failed miserably. But now we have a totally new type of sound engine that involves modeling an actual musical instrument in software. This technique, developed at Stanford and called Physical Modelling (PM), has already made its way into electronic instruments by industry giants like Yamaha (e.g., the VL1 keyboard). Rumor has it a budget strain of Physical Modelling will soon show up in PC sound cards.

A PM instrument requires some sort of excitation (then again, don't we all!) like blowing into a wind sensor, striking a drum head hooked up to a sophisticated miking system, or plucking a string whose output feeds a pickup. The instrument sets up "rules" for an instrument in software (e.g., if you overdrive a reed, it distorts; if you play softly, breath noise is more prominent), converts the excitation source signal into numbers, then plugs these numbers into the model to end up with the final sound. If the model allows for subtle nuances, the result is more expressive synthesis, regardless of what kind of sound you want to make.

The biggest limitation: PM takes a lot of computing power, so it's pricey and you can't play a lot of notes at the same time. Give it a few years, though; it took three decades for synthesizers to go from \$20,000 one-note-at-

a-time behemoths to sleek, cost-effective boxes with 128 voices of polyphony.

### YES, MASTER...

At this point, you're going to want to record your piece for stereo posterity on a master tape. Cassettes are passé, Minidisc and DCC pretty much suck, and recordable CDs are still too expensive. One option is a pro DAT (Digital Audio Tape) machine like the Fostex D5 (tel. 310/921-1112) or Tascam DA-30 Mark II (tel. 213/726-0303), which for under \$1,500 gives you two tracks of CD-quality sound. The guerilla option is a VHS Hi-Fi deck like the HS-U500 from Mitsubishi (6100 Atlantic Blvd., Norcross, GA 30071-1305), a four-head VCR with great audio quality. For about \$400 it sounds pretty close to DAT (oh yeah, it plays videos, too).

Cool stuff, eh? Just wait, there's more to come. You can flog the analog vs. digital issue all you want, but the fact remains that digital has brought music-making capability to the masses at a fraction of the cost of high-quality analog. Call these tools toys, but toys that will extend our range and our powers. And if you're concerned about sound quality, let's put things in perspective: the CD is not much over a decade old. Look how long it took analog to progress from wax cylinders to the Golden Age of Vinyl in the mid-60's. Making music should be a joy; today's toys make the process just that much easier. **ME**

*Craig Anderton has played Carnegie Hall, done session work for Columbia, Epic, Metromedia, and RCA, and produced three albums by classical guitarist Linda Cohen. He is a consulting editor for Guitar Player magazine and technology editor for EQ.*

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Quiet and scarcely ostentatious. The Center for New Music and Technology in the Berkeley hills is changing the face of sound. CNMAT connects the high ground of IRCAM and UC Berkeley to the funding worlds of the NEA, the California State Department of Commerce and Gibson guitars. This cross-pollination has produced some far-reaching innovations.

CHOICE



CUTS

"When you look, your eye can take in two or three dimensions of data. When you listen, your ear can take in hundreds of simultaneous parameters of information. If we use sounds and music as a carrier, complex mathematical and symbolic data can be imported into a listener's neural system."

—Peter Stone, author of *Symbolic Composer* and *EWorks* software

*At the heart of this work is director David Wessel. His low tolerance for the standards for digital expression have provoked him into action.*

“I have a real allergy to the word sample. We don't do sampling. We *analyze* live real sounds, and then if we want to duplicate them in their original form, we resynthesize. But we want a plastic intermediate representation of a *form* that we can manipulate and be expressive. You know, samples—you turn 'em on, you turn 'em off. You make 'em louder, you make 'em softer, and that's about it. You try to time stretch them, and what do you do? You loop 'em in the middle,

• **FAR (Fourier Analysis Synthesizer)**

New (trademarked) additive synthesizer software [see *Bob Ostertag* article—eds.]. Particularly useful for morphing of sounds and making hybrids of two sound sources.

• **ZIPI**

A new network protocol for electronic musical instruments that overcomes MIDI's limitations.

Allows for bandwidth up to 20 Mbps (MIDI's is 21.25 kbps) with currently available hardware and gives musicians much more control of musical parameters.

• **ZETA GUITAR INFINITY**

MIDI guitar updated for ZIPI, its fuzzbox 2000, an effects processor. It treats each string independently, picks up pluck point timbre,

and it sounds looped. The younger generation tends to think electronic music is samples. It's almost become the only way you could conceive of doing it. But indeed not. It would be like, imagine trying to make a convincing orator by just taking the words that were spoken and putting them in the sampler and playing them back. That may be how they create politicians these days. But they're pretty unconvincing politicians.

“Musical culture's gotten hung up on this idea of this giant deep freezer out of which you pull this particular drum sound, this particular saxophone quality, or this sound. I'd rather have some abstract notion of what makes these sounds interesting.



Instead of actually being a re-animator of used body parts, you'd rather understand the underlying genetic engineering and breed some new bodies.

“I don't know what the copyright people are going to have to say. What if I turn my neural networks on a whole body of sound and have them learn something about inner structures? Are those weights in that neural network subject to copyright law? I don't know the answer to that one. I'm sure some lawyers would have a good time with it though. [laughs] There have been some interesting cases that have come forward

fretboard data, etc., and treats the result as part of a signal processing chain which enables pitch-synchronous events like harmonies or sound synthesis and quarter-tone scales.

## • CONDUCTING

Work following on from Don Buchla's *Lightning*, neural networks learn by analyzing the gesture of the conductor. Shaping, phrasing and

articulation under total control. Used with "virtual player," a synthesizer with score and sound options pre-written.

## • TELEPRESENT LEARNING

A project using an experimental dedicated system for remote mixing and control via ISDN and T-1 lines, developed from CNMAT's MacMix software.

about expressive phrasing. The most famous one is the Bette Midler suit about commercials. The idea there was that you were somehow invoking the persona of someone. So I guess if I resynthesized Bette Midler's voice and wanted to invoke the persona, I might be liable, but if I stole some spectral region, there might be trouble or not."

Which leads us neatly to the second half of Wessel's motivation—to breathe humanity into aural engineering.

“I'm an affiliate of the psychology department and this whole area of music perception and cognitive theory is a big part of what we do here. You know, music is a

really big part of the life of the mind. I mean, think about our nature: perception is there to help us interact with the world. In fact our culture seems to have pushed us more and more to records that are canned, frozen materials. I'm interested in musical forms that would allow us to perceive and act together.

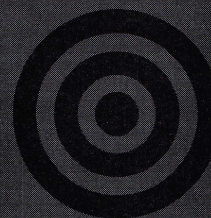
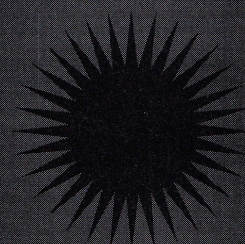
“If we had ZIPI running over a dedicated network, then we can imagine doing that at at least the gestural level. I'm just thinking about the way in which some of the existing networks behave. Our experience was that we had some real latency problems. Our experience is too that when we use Ethernet drivers straight out of the box from Macintosh we get into more latency problems. In other words, a lot of work in computing hasn't addressed what I would call the other half of the realtime problem. I mean, you'll get, quote, realtime display of continuous media once you've got the media started up. But a lot of these network protocols don't satisfy this reactivity problem.

“And then the designers of drivers! Like it was very disheartening to find out that the Apple sound drivers had a lowest latency in the 41-second range and that one couldn't get around it. It's just a question of whether the engineers thought that that would be adequate for quote realtime. Well, not for live performance realtime. I mean this whole idea of working in a studio on any frozen piece of music... you don't really manipulate that on the fly like it's musical material.

“I'm very much concerned with problems of improvisation. And having music technology and representation of music material that affords an improvisatory approach. In other words, I don't want to keep licks around in my machine. I like to have some more abstract representation that will allow me to adapt this strategy to a particular context, and do it very quickly. You know, the way that a sax player can join in under a great variety of circumstances. He'll bring his tradition with him but he's able to slip and slide around in a lot of musical contexts and put a new twist on it. I want our software to be able to do that, to be able to have the musical vehicle I drive around be an all terrain vehicle.” **M+E**

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It could be Ars Electronica, Irrton (the infamous "Festival of Virtual Irritation"), or any of the half-dozen other interactive media festivals around the world where you are drawn in by the promise of the *spectacle*.

smdk seduces you.

No one hounds you to enter. You *want* to get your name on the fun-house waiting list.

smdk, or "simulation space mosaic of mobile data sounds," is an interactive musical space where you can dance with the data — a seemingly random sampling of sounds piped in from the Internet.

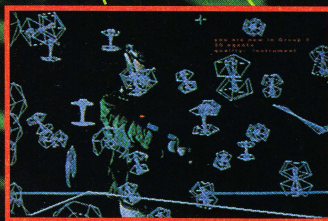
The wizards behind smdk are three awkwardly charming lads from the University of Cologne's Academy of Media Arts, collectively known as Knowbotic Research, or KR+CF.

These boys are not just here to show you a good time. They're exploring new forms of Internet life. Even as they entertain you, KR+CF records your interactions via videocam. You're just a normal thrill-seeking human. You step into their parlor only to mate unwittingly with the datastream and create what they call "virtual hybrids."

It's all for a good cause: KR+CF see themselves as liberating the Internet from its established role as colonial outpost of an "already failed reality." It is, rather, the "uncharted regions of the data space," the "self-organizing, pulsating entities" of data, which propel our heroes forth into untold dimensions.

For their contributions to "genetic art" KR+CF received the *Medien-kunstpreis* at May's ZDF Karlsruhe, in the company of such notables as director Peter Greenaway and media critic Jean Baudrillard.

On tour since 1993,  
smdk wraps up in  
June with a show at  
the Arte Biennale in  
Nagoya, Japan



> DIY INDUSTRIAL <

Keine Selbstkontrolle

BY BETH SLATKIN



The sounds are there, shimmering in virtual space, waiting only for you to touch them with the magic wand and reclaim them from the void. They provide you with a cool, dark stage where you can strut your stuff and compose your own private fantasia from sounds both live and taped.

Wave the day-glo wand left and meet the first movement of the *Trout Quintet*. Sweep it to the right and trigger a wall of thunder so deafening it jellifies your innards and makes your heart leap off into Group 6. A mobile terminal with an eyepiece alerts you to the number, type and location of "agents" arriving via data networks like e-mail and ftp. Your random movements are projected instantly onto a video screen, recording the effects of your wand-wavings.

**Excuse my childish urge to run around and zap! things.**

The vast sound space lets you run amok, fully inhabiting the wild-eyed conductor *manqué* who broods within. One final apocalyptic movement and immortality is yours. Your orchestra: the Global Data Philharmonic. Your aim: TonVergnugen.

Up surges the primal sense of play you once indulged in during the pre-operative years.

The beauty of this set-up: it treats all sound data as musical material. Here, Holst's *Planets*, doo-wop and monster-truck rally ambience are all on equal footing.

**But beauty is deceptive.**

Behind the magic curtain is a complex web of computers containing "rules" used to build "the self-organizing concepts of a complex organism." The human enters this system in a "cultural exchange" with the datastream.

**In the end, you are merely an antigen.**


"How resistant and virulent," they ask, "can such human-sensitized combinations of reality remain without instantly becoming part of their organization?" (One suspects this is a bad translation from the German.) smdk is at once performance space and petri dish. The Knowbotic team is, after all, dedicated to *research*. Data is the substrate, while the human's random aesthetic is the intruder, despoiling the mitoses of the datastream with its chaotic viral behavior. (Their brochures abound with this kind of scientific metaphor.)

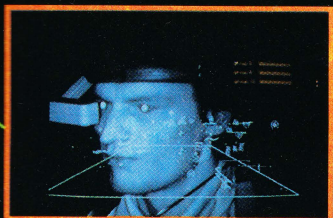
Still other hybrids are evolving. "TT-turing tuning" uses algorithms mimicking genetic selection to create random sound patterns, a kind of Darwinian music where only the fittest sounds survive.

"Dialogue with the Knowbotic South," KR+CF's latest work-in-progress, engages the viewer in a question-and-answer session with an Antarctic Research Station via the Internet. The resulting data is mapped onto computer images of that barren region.


**German bases in Antarctica?**

KR+CF's sophisticated toys smack more of science project than performance art. And their pioneering work enjoys a suspiciously generous official patronage from the University of Cologne.

But if you're part of their experiment, you never think much about it. You're too busy playing the Sorcerer's Apprentice. 







# AIR TIME

## How to produce and distribute independent radio

They're privatizing NPR. Right-wing talk shows dominate the airwaves. Media control is concentrated in the hands of a few large corporations. Traditional bastions of liberalism—like Pacifica Radio—have been coöpted by New World Order foundations. In short, there will be no voices of dissent in the 90's.

Into this bleak scenario strides Maria Gilardin, who started doing radio in 1980 at Berkeley's KPFA. She knows how to reach the 800-some smaller community and public-radio stations out there that are hungry for professionally-produced programming—radical, eclectic, or whatever.

Maria (pronounced Mariah) first tangled with Radio Authorities at the 20th Anniversary of the Free Speech Movement in Berkeley in 1984 when she rigged up a microphone on a long cord and let people on the street walk up and say anything on the air they damn well pleased. That didn't go over too well at KPFA.

There were other clashes: "I was development director. They wanted to depend less on small contributions from many people and more on large contributions from a few people and foundations—this from the station that *invented* listener sponsorship! This I thought was a very sad and dangerous development. We had disagreements over internal democracy at the station, too. More and more power was concentrated at the top."

by Maria Gilardin

So she decided to create an independent radio production company, TUC Radio, two years ago to open up production and reach the whole public radio system with crucial programming.

TUC stands for "time of useful consciousness"—an aeronautical term for the amount of time a pilot has left after experiencing oxygen deficiency before s/he blacks out. "So you have a chance during this time to pull out, go to a better altitude, to save yourself and all the ones with you," she says. "It's also a metaphor for the time we have left to deal with the total destruction of the natural world by large corporations, aided and abetted by the IMF, World Bank, and GATT."

TUC's 30 programs (so far) largely focus on this unholy trinity, through interviews with dangerous thinkers like Noam Chomsky, Michael Parenti, Alex Carey ("Corporations and Propaganda"—a classic exposé), Vandana Shiva on biotechnology, and Jerry Mander on neoluddites. Its programs are syndicated to 80 stations around the country.

A confirmed neoluddite herself, Maria lives in a spartan artist's coö্প—Project Artaud—in San Francisco surrounded by a 14-foot philodendron, organic mulch box, manual coffee grinder, spinning wheel (shades of Gandhi!), her found-art sculptures, and, incongruously, a complete desktop digital radio production studio in her closet.

—Wes Thomas



## PRODUCTION

### 1. Recording/music/SFX

Don't scrimp here—you need professional equipment. I use a \$700 Teac DA-P20 DAT recorder, a \$120 Electrovoice 635A microphone (the standard reporter's mike), and an AKG C3000 studio mike. I also use a CD player for music.

### 2. Digitizing

You'll need a sound card to turn your computer into a recording and editing studio. This card converts analog sounds to digital (it also has inputs and outputs for digital sound). It must handle 16 bits or better for professional results, especially with music. Digidesign's AudioMedia II is the standard on the Mac. You'll also need a hard drive with a capacity of 5 MB per minute of

recording (twice that for stereo) and 28 msec. access time or better (contact Digidesign at 415-688-0600 for recommended drives). I have a Fuji 1.2 GB drive.

### 3. Editing

Editing software lets you cut and paste bits and pieces of voice, music, and sounds, assemble them into the desired sequence, and save them as sound files. This replaces the old time-consuming editing process: cutting up bits of tape and splicing them together. I use Digidesign's Sound Designer for this.

### 4. Mixing

Next step is to smoothly flow the sound files together, setting

levels, times, fades, crossfades, etc. I use OSC's DECK II software (version 2.2 runs on a Power Macintosh without an audio card). Then you save the whole mix to your hard disk.

### 5. Mastering

Now that you've got your show, you need to record it (via your sound card) to a DAT recorder for high-quality mastering. I use a Panasonic SV-3700 (I also use it for backing up the hard disk).

### 6. Distribution

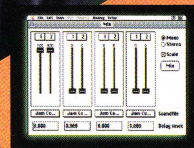
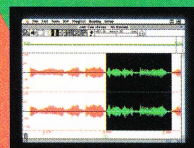
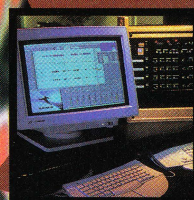
The cheapest way to distribute your program is by satellite. You send a DAT tape to a satellite uplink station (check with the station engineer for the correct reference tone and timing). For radio stations not on the satellite, record from the DAT onto a high-quality chrome (TDK or BASF) cassette tape dubbed in "real time" (not at the normal high speed).

### 7. Duplication

For listeners who want cassette tapes of shows, you'll need a dubber. Or you can use a (more expensive) duplicating house.

## DISTRIBUTION

Go to the smaller non-commercial community-run and educational radio stations, which are open to radical, conscious programming. These include schools, municipalities, and colleges (although many college and university stations won't air unpopular "advocacy radio" viewpoints), and most interestingly, community groups, like WOBJ in Hayward, Wisconsin (Lac Courte Oreilles Ojibwa Broadcasting Corporation), produced by the Ojibwas American Indian tribe, which airs my show. There are also micropower (pirate) radio stations springing up all around the U.S. that have a great need for radical programming.







© 1994  
david  
fremont

**EPISODE 6:  
DO-IT-YERSELF  
RADIO**

Bank of fun  
4689 5052 9101 1110  
DICKSE

Wee hoo

you can't live in here anymore, Orifice Boy.

farewell then

G. WEEN

How 'bout  
a new strat,  
I'll throw in a  
turner? How 'bout a hug?

and your show can be about whatever you want, Bubba

good.



Hi

Well Bob what can I say... maybe you're just a big Asshole

COMPUTER



*You have three ways to go:*

1. Mail out tapes. This can get expensive.
2. Internet distribution is possible but few stations have access to it; the large file sizes and lack of file and compression standards may make downloading impractical.
3. Send the program via satellite (for U.S. distribution). This is the cheapest way to go. Over 400 non-commercial stations have satellite access. Among them are the larger and more prominent public affairs stations. (But skip the TV-affiliated stations, which are usually very conservative and NPR-dominated.) The Grateful Dead have been on the satellite since 1989, and they uplink an hour of music.

#### GETTING ON THE SATELLITE

The first step is to call the Public Radio Satellite System at 800-235-1212 for a free info kit. You can also get their *Getting Started* registration kit for \$25, which gives you a list of stations. (The system is administered by National Public Radio in Washington, where there's a security area in the basement that looks like a military installation. You can look through bulletproof glass into the satellite uplink area.)

After your show is ready to air, you reserve satellite feed time and channel and send a "DACS" message to program directors at all stations (using modem or fax to a central distribution point) describing your program(s) and giving satellite feed details. Stations that want to air the show will record off the satellite for later airing or run it live (for news or important events).

You typically rent satellite time in half-hour or one-hour slots for 13 weeks, because community and public broadcast stations usually program by quarter of the year. Usually a quarter has 13 shows in it. You could also uplink just one program if you prefer.

The cheapest time to uplink to satellite is at night. You can get very inexpensive time (\$16 for 15 minutes and \$5 for each subsequent 15 minutes—double that for stereo) after 1 a.m. You pay more than twice as much for daytime. And usually night programmers at stations are more adventurous and open to experimenting, or they get so sleepy that they don't mind having something interesting happen.

There's also a nominal uplink fee to the uplink station (there are 25 of them). Use an uplink in a small city—the fees are much cheaper (Boise and Kansas City public radio stations charge just \$4 for the first 15 minutes). If I'm in a rush, I take my cassette to a satellite earth station down the block from me (KQED in San Francisco), which charges \$25 for the first 15 minutes.

Another option is to produce your program live at the uplink station. Just hook your computer audio card output right into the satellite uplink transmitter. You can set up a live event like a national talk radio show that way: have the calls go to the station and feed them right on the air.

A lot of music festivals often get uplinked that way, or huge demonstrations, or big public events. Every now and then, they call me and say I'm preempted from my slot because they're giving away the whole day for a special event, for a blues festival out of Chicago or a national rally in Washington, and somebody bought the whole day, and then everybody else gets bumped to a different channel.

By the way, one of my dreams is to get some independent producers together and rent a satellite channel for a whole night and do something wild with it.

Another satellite option is the Ku-band Galaxy IV satellite, which is catching on because of the low earth station costs (about \$3000).

The biggest part of getting out there is having a really great idea, or very strong thoughts and feelings, or very beautiful, unusual extraordinary music, because the satellite is just flooded with babble. It's a bit like the Internet. For people to want to connect with you, you have to have something strong, whatever it is.

#### HOW TO MAKE MONEY

If you ask the stations to pay, you're competing with NPR, which has many of these stations affiliated with them and takes a \$20,000 to half a million affiliation fee, then offers them free programming. This leaves stations cash poor to buy from independents. I ask stations to pay just the expense of the tape.

The best way you can get some money back for your work is to put a tag on your program ("If you like this program, you can get a printed transcript and audio cassette copy by sending X dollars to the following address..."). You'll get mail from all around the country—funny, curious clippings and odd letters, plus orders with checks. I give stations rights to play our programs as often as possible. The more people hear it, the more they write us.

If you're really good, you can turn this into a real job *without* compromising your message. David Barsamian in Boulder, Colorado produces *Alternative Radio*, a weekly one-hour show syndicated to over 100 stations in the U.S. and 70 countries around the world via shortwave. "I'm out to overthrow the corporate state," he says. In the meantime, he's appropriated their tools: an 800 number for credit card orders. **ME**

## For more help, CONTACT:

**Public Radio  
Satellite System**  
800-235-1212

**Association of  
Independents in Radio**  
1718 M St. N.W., #361,  
Washington, DC 20036,  
903-886-7051, fax 903-886-  
7052, air@well.com

**National Federation of  
Community Broadcasters**  
(has a list of stations)  
666 11th St., N.W.,  
Washington, DC 20001,  
202-393-2355

**Corporation for  
Public Broadcasting**  
(its *Public Broadcasting  
Directory*, \$25, has details  
on stations), 202-879-9600,  
fax 202-783-1019

**National Federation of  
College Broadcasters**  
410-863-2225

**World Association of  
Community Broadcasters**  
3575 Blvd. St. Laurent,  
Suite 704, Montreal, Que.,  
H2X 2T7, Canada,  
514-982-0351

**David Barsamian**  
Alternative Radio, 2129  
Mapleton, Boulder, CO  
80304, 303-444-8788

**Free Radio Berkeley**  
(for info on pirate radio  
stations) frbspd@crl.com,  
510-464-3041

**TUC Radio**  
Box 410009, San Francisco,  
CA 94141, 415-861-6962  
(phone and fax).



# HDCD AUDIO WEBS

By Wes Thomas

Here's the prob: CDs are flat and sterile. We've got a whole generation growing up with massive audio sensory deprivation. And what's worse, they don't know the difference.

Worse yet, whole segments of the history of music are being lost forever, thanks to DAT digital mastering and CD-only releases (and don't forget: CDs don't deteriorate in ten years).

Blame it on the brain-damaged digital recording process. What did you expect with something developed in the 70's? Some of the highs and lows are simply *bobbitized* during 44.1K sampling. The result is the slightly metallic affectless sound we know as "digital."

One solution: HDCD (High Definition Compatible Digital), pioneered by Pacific Microsonics,

who first announced it in 1992. The HDCD process masters audio at 20 bits or more (compare to 16 bits with conventional CDs; only 16 bits get recorded but there's additional sound data) and samples at several hundred thousand times a second. That translates into *very* high quality. Inventor Keith Johnson of Pacific Microsonics claims CDs recorded with HDCD and played through a decoder sound indistinguishable from an original analog master tape. (Some experts we talked to won't go quite that far.) Any questions?

**Yeah. When will HDCDs be available?**

Reference Recordings of San Francisco already has 13 titles out. Demo stuff: classical, piano jazz, chorale, big bands... [*Yawns, looks away absent mindedly*] Oh, and Neil Young is working on a HDCD set for release by Warner Brothers. His agent refuses to say when...

**Is that all?**

Well, ah, Pacific Microsonics tells me several studios have ordered encoders (which convert analog to digital at high quality), so we can expect to see a bunch of HDCDs coming out real soon now...

**Yeah, right. That means I'll have to buy a new CD player. Sounds like yet another product obsolescence scam!**

Wait! HDCDs will play on your standard CD player. OK, OK, if you want the ultimate quality, you *will* need a new CD player with a beefed-up new decoder chip—it will cost over \$1500 initially. Pacific Microsonics has licensed the tech to 16 companies already, so we can expect new HDCD players on the market in the near future.

**How does HDCD compare to all the other formats coming out? I'm getting really confused.**

There are three I know about. DCC and MD are

incompatible with CD players and even worse than CDs. Sony's new Super Bit Mapping scheme is also a 20 bit system, but HDCD is better, the experts say...

**Enough on that. What's the deal with music videos on CDs?**

Enhanced CD adds text and pictures (an extra 150 to 250 megabytes) to the music when you play your CD on a standard Mac or Windows CD-ROM player. Or you'll be able to hear just the music on standard CD players—without blowing out your speakers (to be safe, get CDs in the more advanced "CD Plus" version of Enhanced CD).



"I'm not a big fan of MIDI. MIDI misunderstands what a musical gesture is. MIDI treats notes as events."

And I agree with Dan Buchla, that a musical sound is actually a gesture, it's not an event. It's a moving thing through time."  
—Robert Rich, *Hearts of Space Recordings*



Note: Enhanced CDs may not work with some older CD-ROM drives. Most major record labels are planning to release titles in this format. (Check out EBN's *Telecommunication Breakdown* coming from TTV Records in April/May, with CD, Enhanced CD and floppy.)

There are also new CD-ROM formats coming that will store a full movie. They'll squeeze more data on a CD by using a blue laser (translation: you have to buy a new CD-ROM player). Some call this "High Density Compact Disc," not to be confused (as it will be) with High Definition CD. Seems we'll be stuck with dueling standards: DVD (digital videodisc) from Toshiba/Time-Warner vs. Video CD from Sony/Phillips, so... OK, OK, let me know when all this is real.

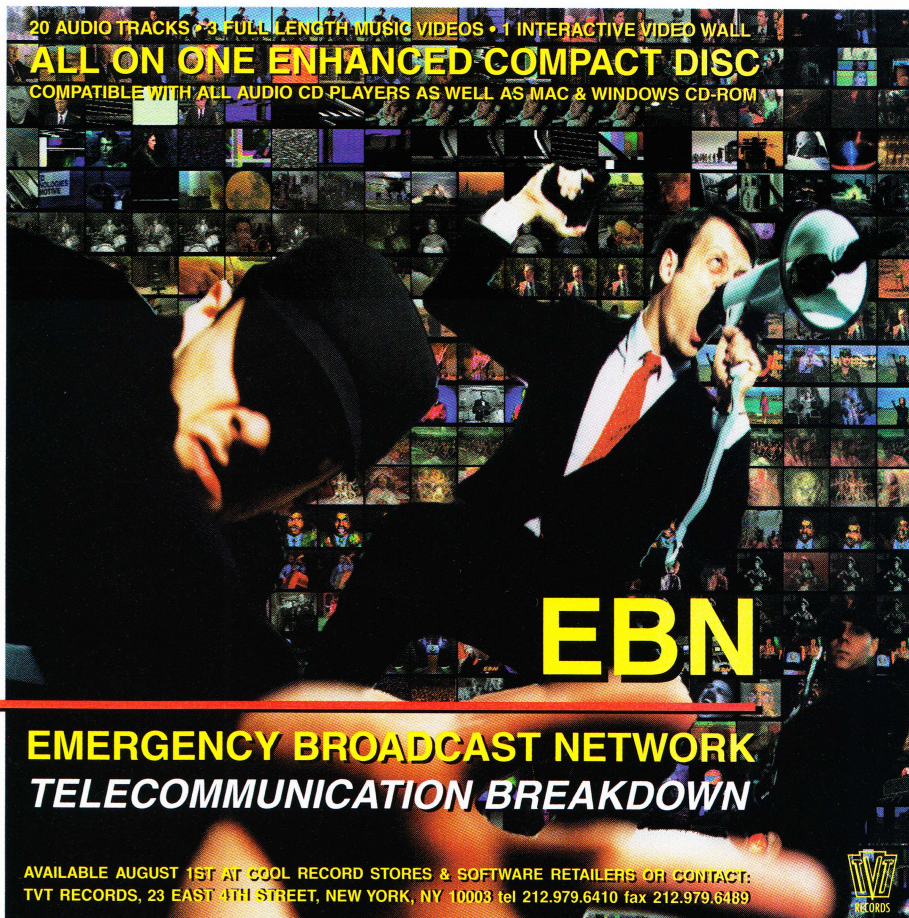
Check. **ME**

"MIDI as a communication protocol for electronic instruments is a joke. It suffers from bad engineering and the idea that all electronic instruments are glorified pianos. MIDI should be discarded and a new electronic instrument protocol should be built on top of TCP/IP, the Internet standard protocol. One could then envision the use of the Internet for complex musical interactions."  
—Erik A. Dahl,  
Comatense Recordings  
Artist/Programmer

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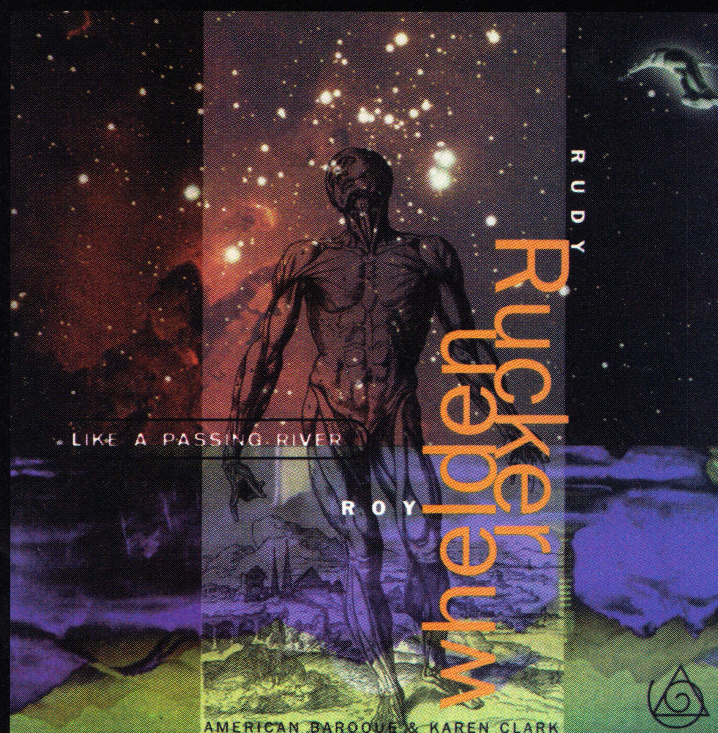
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I was sixteen when it first hit

compact disc (NA072) written & read by Rudy Rucker  
composed & performed by Roy Whelden with American Baroque & Karen Clark, alto.



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SINCE 1986, INSPIRING  
CREATIVITY IN DIGITAL MEDIA

STAY TUNED



# VINYL REDIVIVUS

by Joel Selvin

Somewhere late at night in the Hollywood Hills, a record executive who still loves the music comes home after work. A closet vinyl retentive, he quietly slips on an old album, Neil Young's *After the Gold Rush*, and sinks into the darkened living room. The twenty-five year-old vinyl disc still betrays its age with a lightly popping hiss in the upper corners of the sound. As he sinks deeper into his couch and listens, enveloped in the gentle warmth of the music, despair seeps through him. How did we let this happen, he wonders. Where did we let go?

But he is not alone in his fears and anxieties. Neil Young hates the digital domain. "I'm convinced this is the Dark Ages of sound technology," he told me. "Until sampling levels take a giant leap, the therapeutic value of music will be lost. There's a myriad of sounds in the upper high end—that's where the magic lives. There is a cosmos, a universe of sounds, millions of different sounds, and digital averages them all into one."

He pointed out the window of the Skyline Boulevard restaurant in the hills above Redwood City. "It's like taking all those shades of green and having only one shade," he said. "The mind has been tricked, but the heart is sad. It doesn't know why it can't feel the music. The magic lived in the hiss, the air, and now there's no air."

"If music is like water pouring over you," he said, "analog is a mist spraying your face and digital is tiny ice cubes all the same size, all the same temperature. They barely trick your mind into believing it's real."

None of this comes as news to anybody remotely concerned about sound reproduction. Engineers talk about the warmth of analog, the contours of the sound. People who make compact discs now try to master the shiny little beasts to sound as much like records as possible. Nobody admits to liking digital sound.

Why should they? What's to like? The crisp, chilly edge of the sound, often jagged, always brutal, as music decays into silence. There is no silence in nature. Everything has some kind of ambient sound. Only in digital recordings does silence exist. These things slide off into a dark, icy silence almost as soon as the sound turns to a hum. There is no decay. There are no overtones, except those the error correction program artificially restores.

## The Diamond Effect

Some goofy doctor, as long ago as the early 80's, warned that digital sound caused stress and that the waveband of digital missed all important receptors in the cortex that connected to the emotions. The Diamond Effect, as he called his postulatory, was largely discounted at the time as the ravings of a mad scientist. But Neil Young wouldn't laugh at Dr. Diamond.

Even one of the inventors of the compact disc wonders what all the fuss is about. "In Europe," said French engineer Roger Lagadec, "the CD was conceived of as a

mid-fi product from the beginning. It was a way of relieving the mass public from fragile, dirt-affected, wear-afflicted vinyl. It's a very good way as it turns out, although we have determined that a CD's immunity to fingerprint smudging and warpage has been grossly exaggerated."

Indeed, *The Wall Street Journal* ran an article warning about the immense amount of important data that was stored on CD-ROMs under the assumption that CDs were forever. This was before little phenomena like "pinholes" and "CD rot" were discovered. But where CDs really fail is in delivering really good sound reproduction.

Engineer Rudy Van Gelder recorded most of the major jazz sessions of the 50's and 60's in his Hackensack, NJ studio, cutting musical giants like Coltrane, Rollins, Monk, Miles for legendary labels like Blue Note, Prestige, Riverside. Collectors pay hundreds of dollars these days for original pressings of these recordings. Why?

Van Gelder, whose microphone technique remains his own closely guarded secret, had a way of putting what professionals call "room" in the sound. By that, they don't mean extra space. They mean that the room in which the recordings were made plays a palpable part of the finished product. Van Gelder didn't just run a tape recorder; he documented music and the acoustic environment in which it lived. In his recordings, it is possible to hear notes

The mind has been tricked but the heart is sad



## MoFi's Secrets by Wes Thomas

flutter, live and die  
as they mingle and cluster  
around one another—the  
sonorities of brass and reeds, the  
gentle stroke of brush against snare,  
the quietude of a piano chord, held  
until its reverberations finally, inevitably  
float away.

But the consumer public barely paused  
in their stampede to go digital. Sales of CD  
players grew exponentially each year through  
the 80's. Sales of old records, repackaged on  
CDs, went through the roof. With the wind-  
fall profits associated with merely remanu-  
facturing old titles in this new format, record  
labels can hardly be blamed for encouraging  
this bonanza. Van Morrison's *Astral Weeks*,  
for instance, took eight years to sell its first  
hundred thousand copies. Now it routinely  
sells more than fifty thousand a year.

If CDs sound so bad, how did this  
happen in the first place? Most music fans  
have never heard the difference between  
CDs and quality vinyl. The truth is that,  
under casual scrutiny, compact discs have  
a cleaner, more direct, less flawed sound  
than phonograph records played on a  
crummy turntable through an indifferent  
cartridge. But anyone who bothered to  
invest slightly more money in quality car-  
tridges and turntables—and those things  
can run as high as \$15,000—knows immedi-  
ately the difference between phonograph  
records and compact discs.

Another factor is the presumption that  
record companies manufacture a quality  
product. Again, anybody with experience  
listening to audiophile pressings knows  
how ridiculous that is. Record companies  
mass produce albums as cheaply as they  
can—that is their mission. No obvious care  
is taken with the preparation, materials or  
manufacture of the final product. Imagine  
spending a million dollars recording and  
polishing the work of some of the most  
gifted artists the field has to offer and  
then stamping it out on a dime's  
worth of polyvinyl chloride.

Check out the versions of,  
say, the early Elvis  
Presley albums,  
pressed in the  
50's, when  
vinyl

was vinyl and not some adulterated blend  
of plastics made from old Tupperware.

So cheap records and cheap stereos  
digital sound can beat. But one can't shake  
the sense that it's a counterfeit experience.  
Audiophile expert Michael Fremer, who  
publishes a newsletter called *The Tracking  
Angle*, had this to say, "Listening to CDs is  
like watching pornography. Listening to  
records is like actually having sex."

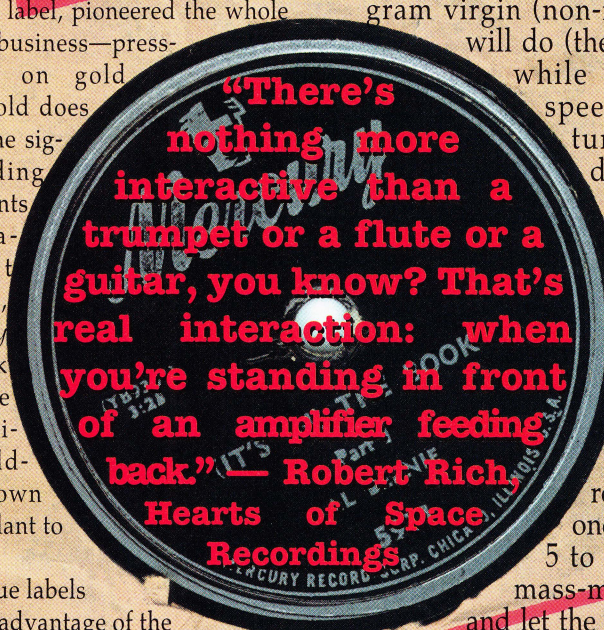
Record companies are developing new  
mastering technologies and all the major  
labels have instituted gold CD lines like  
the audiophile companies make.

Mobile Fidelity Sound Lab of  
Sebastopol, CA, the industry's leading  
audiophile label, pioneered the whole  
gold disc business—press-  
ing CDs on gold  
because gold does  
improve the sig-  
nal reading and  
prevents deterio-  
ration—but last  
year, even they  
went back into  
the vinyl busi-  
ness, build-  
ing their own  
pressing plant to  
do so.

Boutique labels  
are taking advantage of the  
backlash demand for vinyl press-  
ings. Classic Records of Los Angeles has  
been quietly putting out the revered RCA  
"Living Stereo" masters, largely classical  
recordings from the 50's, selling the pris-  
tine, high quality repressings for \$30.

Collectors pay literally hundreds of  
dollars for the originals when they can get  
them. The vinyl edition of the recent Pearl  
Jam album *Vitalogy*, released a couple of  
weeks ahead of the CD, actually hit the  
best-seller charts. The signs and portents  
are that vinyl is back to stay. **ME**

Joel Selvin owns 25,000 albums and 15,000  
singles, has covered pop music for the San  
Francisco Chronicle since 1970 and is the  
author of five books including *Summer Of Love*,  
his account of the 60's S.F. music scene.



I've met some serious aural-  
obsessives, but these guys at Mobile  
Fidelity Sound Lab (Sebastopol, CA)  
are like total fanatics. We're talking  
lavish care. It takes them about a  
week per LP just for mastering. No  
wonder they have only 20 titles.

They master only from original  
tapes, using a custom-built distortion-  
free Class A 250 watts/channel  
audio amplifier to drive the cutter  
head, which is bathed in liquid heli-  
um at -35° C. (They master at half  
speed to assure that the cutter head  
works more effectively.)

They don't use skinny 120 gram  
vinyl; only heavy warp-resistant 200  
gram virgin (non-recycled) vinyl  
will do (the record takes a  
while to spin up to  
speed on your  
turntable). For  
distortion-resis-  
tant grooves,  
only 5000  
records are  
pressed from  
each master  
(and under  
500 from each  
stamper). Then  
they press each  
record for 60 sec-  
onds (compared to  
5 to 6 seconds with  
mass-market records),  
and let the record sit for 30  
minutes to let the grooves form.  
The resulting LPs have a rabid  
audiophiles following—but couldn't  
we get some newer sounds?

MoFi's Ultradisc II CD process is  
just as finicky. Like their LPs, they  
master CDs from original analog  
tapes, plus they use 24-carat-gold  
coating to eliminate pinholes and  
resist oxidization, along with a full  
16-bit military-grade A/D converter.  
This translates into better frequency  
response, unlike conventional CD  
manufacturing, which uses cheapo  
electronics tech that lops off some of  
the bits. Audio gurus say their CDs  
do have a definite undigital sound  
(and that's a compliment). **ME**

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Kate Schmitz

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**HIP HOP is hanging on by its vinyl roots. From mixing to scratching to the stage, vinyl has always been the basic stuff, the *materia prima* of the form. There are some things you can do *only* with a wax plat-**

But in recent years, the near phase-out of LPs, combined with prickly sampling laws and mounting commercial interest, has rendered the form all but unrecognizable to its original players. 1995 marks a turning point: once again major labels are making vinyl a regular option for rap consumers. Why? Because artists and listeners are demanding fuller access to the Universal Discography of sound.

Hip hop heads will be the first to tell you that their music is more than just a market, it's a culture—one that grew out of an impulse to make music with whatever tools available. And in early 1970's New York, those tools were turntables and records. "Records are very important," says Matt Africa, KALX DJ and rap buyer at Berkeley's Amoeba Records, "because these days, dusty old LPs are the [sampling] source of 90% of whoever's CD hits." Two decades later, wised-up copyright holders are also fiending for the perfect beat. So canny hip hop artists are applying their sampling instincts to today's DAT machines and digital recorders.

"All the formal trends follow economic trends in the industry," says Donnell Alexander at the *LA Weekly*. "If people want to pay less for samples, the move is away from traditional ways." Larger acts like Paris and Dr. Dre employ studio musicians to replay a desired riff or beat—altered slightly and thereby technically within sampling law. A select few artists, like the Roots and the Beastie Boys, actually play their own instruments and/or compositions. But most groups still rely on samples.

"People are more careful—unless they're too rich to care," says Africa. "Everyone else has really gotten more sneaky about things, technically speaking.

People are getting more adept in their use of samplers because of the feeding frenzy on artists." Armed with a sampler, the canny producer can manipulate a track beyond recognition. "You can muffle out the high-end so all you have is a rumbling bass," Africa suggests, or use smaller pieces, or layer multiple sections. "I only got one thing to say about it," DJ E-Swift of Tha Alkaholiks sums up, "just go with your first instinct. I mean, if you hear something that's fresh and you gotta sample it, sample it. You just gotta disguise it."

And, he adds, "for the money you would put into recording at a studio, you could buy your own ADAT set-up."

Once your sample has been recorded digitally, it can be brought to a digital audio workstation and subjected to any number of soundbending manipulations. "Things like ADAT are great," says Alexander. "Compression of sound, squeezing everything but what you don't need from an element... this is something you could never do with just a turntable." E-Swift agrees: "ADAT—actually what



by Sylvia Tan

But sampling is just part of the story. Now multi-track digital recorders like the Alesis ADAT and the Tascam DA-88 are offering unsigned artists other ways to get their sound out. These comparatively low-cost alternatives to analog recording are not just simulations—they are the exact high-end studio machines, says Andy Jewett, managing editor at *Mix Bookshelf*.

it's doing is making home recording a lot more affordable." But his heart still lies with analog. "There's a difference," he says. "You have to know how to use digital equipment to get the analog sound. It's like me, I have ADATs at the house, and if I do record on them, I won't just mix straight off the ADATs. I'll take 'em to the studio and then dump

"The public has not recognized the failings of digital recordings because they have never heard how good their analog records are. But while all the information is preserved on old-fashioned stereo and mono records, and techniques have



'em onto tape so you get that sound back. When it comes down to mixing, just make sure you have the fattest sound you can get. And that's usually for me gonna come through analog."

E-Swift likes to use old Neve 24-track boards and Sony two-inch tape machines. "I mean, you can get away with some digital things, like vocals—things that you want to be clear," he says. "But as far as like, just the bass and the fullness, analog is always the way to go. There's no way around it." E-Swift says his scrupulous attention to sound quality is standard among hip hop producers, and that like him, they simply absorb new technology into their repertoire of production tools. Put bluntly, "It's come to the point where the world is turning into computers, anyway, you know?"

In the arena of live performance, DAT-based shows are fast replacing turntables, much to the dismay of vinyl diehards. Hip hop may have begun in the parks with two turntables and a mic, but these days live opportunities are limited. Lack of venues, exorbitant insurance/security costs, and fear of "the Element" have reduced shows from a primary way to break new audiences to a marginalized demonstration of skills. Most artists, whether they like it or not, don't get a chance to develop a live act. This is where DATs—prerecorded multi-track tapes—come into play.

"An unfortunate side effect is that the DAT has for the most part replaced DJs and turntables as a source of music for artists," says Africa, who also spins at Your Mama's Cafe in Oakland. "It's more convenient to just go to the studio, cut the instrumental, have it put on DAT, and carry the three-inch by two-inch cassette around with you. Most any venue has a DAT machine."

Tha Alkaholiks are one group who still tour heavily. In 1994 they went on the road seven or eight times, including stints with A Tribe Called Quest, De La Soul, and Wu-Tang Clan. In April, they joined Biggie Smalls, Craig Mack, and

Mobb Deep on tour. For E-Swift, DAT hasn't replaced turntables; it's an alternative. "A lot of groups are incorporating both, just where it's convenient," he says. "Basically it's like a safety precaution. You know, always have a backup DAT in case the



turntables aren't working right, or vice versa."

The 'Liks' promotional tour for their new album, *Coast II Coast* (Loud/RCA), consisted of a series of in-store and radio appearances. There it made sense to go with DAT, especially since vinyl versions of instrumentals they use live hadn't been pressed yet. But E-Swift says the group always requests turntables on their riders. "As far as keepin' it real and staying with the essence of hip hop, we try to incorporate turntables in the show whenever we can," he says. "If a group were totally against turntables," he adds, "then they lose respect, but everybody has to use a DAT once in awhile. It's not like you're really playin' yourself. It's just helping you out."

"Keepin' it real" is a phrase that's bandied about a lot. And DJs like to see themselves as the culture's historians. "Keeping the traditions alive—that's done through the DJs," says Africa. "They're the ones who will play an older record that will make the youth go back and look at the roots. They tend to be more knowledgeable, and they pass it on." And it's the DJs, along with producers, MCs, and listeners, whose repeated demands are putting vinyl sections back in the stores.

"Vinyl can't die," says E-Swift. "It's like tryin' to change the world. Some things you can't change—vinyl's one of 'em." **M+E**

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Unabashed hype on an as yet unnamed Net-based music site.

# Flame Thrower

Mixmaster Morris gets algorithm

by Nick Roberts

Imagine an entire planet of Web-heads doing this simultaneously and the result is virtual copaceticism (multi-user groups composing shit on the fly) or neo-troglodyte ("this is my music so fuck off the lot of you"). Just because some dink rips a loop, tosses it around in the digital jacuzzi a couple of times and markets it as The Global Mix doesn't mean it's going to play on the Net. The audience might just as well be EZ-listening, consigned to the ever-growing pile of technocentric garage house white-labels which occupy most of the headspace at clubs around the world.

Into this world strides Mixmaster Morris, ambient electronic Entity now evolved into a living part of the Web organism. In the flesh, a DJ playing 200 ambient clubs a year on three continents. In the ether, the sentience behind The Irresistable Force and its new release *Global Chillage*.

Once a programmer for the British government, Morris was removed when the Tories pulled the funding for low-income housing projects. He leapt straight from the welfare state into the comfort zone and the all-encompassing womb of Ambient.



There's a line in the sleeve notes for *Global Chillage*: "It's time to lie back and be counted." This ironic exhortation could only come from Morris, the navigator of empty spaces and instigator of environ/mental feedback. Like the holograms embedded in his trademark silver jumpsuit, he's able to appear at a different place at any given time. One step ahead of record execs eager to expand their bandwidth and skim the content, he's the Scarlet Pimpernel of underground trance.

## SHAMELESS SELF-PROMOTION

**M2:** What's the connection right now between the ambient house scene and the Internet?

**MMM:** The underground, you mean...

**M2:** Yes. Is it starting to take off?

**MMM:** Yes, absolutely, but it's past the initial explosion stage and into the stage where people are beginning to realize that it's got yet another threat from the music industry to deal with. I'd say it's time to take evasive action.

**M2:** Have you gotten involved in Net-based performance?

**MMM:** Well, you mean just occasionally plugging their concerts on the Net like the Rolling Stones? Well, let's not get into slagging anybody off...[pause] The people who make the most plays on the Net actually don't have any presence on it really. I actually run my own sites and I'm active in getting stuff to post on them. A lot of people think all they have to do is lob a few thousands at a consulting company and that makes them Net gurus.

**M2:** Do you think the music industry is afraid of the Net?

**MMM:** Well, anything that involves the music industry getting involved in the Net is bound to lead to lots of lies and hype, because that's what they're good at. I mean, I do envision every label having people paid to sit in the corner and flame each other. That's how it's going to be, isn't it?

**M2:** Or having these "instant" bands promoting themselves on the Internet.

**MMM:** Well, I guess the labels will regard it as an extension of their advertising contracts. The major labels are famous, above all else, for their inability to understand what "underground" is all about, except as a possible way of making a fast buck. So my flame-thrower is on and primed.

**M2:** So who's been doing it right?

**MMM:** I think that groups like the Ambient Mailing List and the RPM/Techno Mailing List have been really important in establishing aesthetic criteria to listen to these types of music by. [pause] I've phrased that wrong. But I think underground people ought to be open to criticism and open to an interrogation of what they're doing.

**M2:** Will the Internet become the major form of distribution?

**MMM:** It could, but I'm sure the industry has been well-warned. IUMA's great, but who's behind IUMA are the people at Warners. So don't get too excited too quickly. There's so many possibilities for electronic music on the Net which haven't really been explored. Why send the whole track, when all you have to do is send the algorithm? Why create a track, when you can create a stand-alone application that can be manipulated on someone else's machine? For me, that's a bit more exciting. Or you can create MIDI processes of various sorts and give them away without having to purchase an additional piece of software to run them. The technology is the music...

## THE SOUND OF PINK MARBLE TURNING IN SPACE

**M2:** What about QuickTime MIDI?

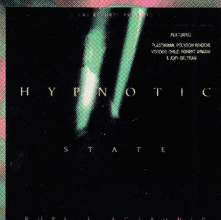
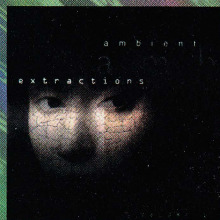
**MMM:** I just got QuickTime 2.0 so I haven't had a chance to play with it. The problem with MIDI is that you can't specify enough. MIDI is still only about notes on and notes off. And techno's gone beyond that. We need a new standard specified really. You need some equipment-independent way of specifying textures, some way of specifying modulations in order for it to be a really sexy interface.

**M2:** A KPT series for sound, maybe. But then aren't you getting into having these stock musical textures?

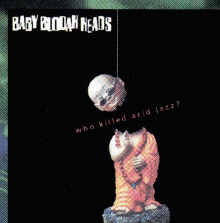
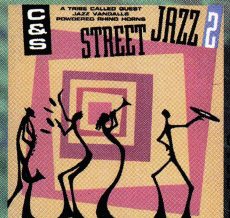
**MMM:** Well, sometimes I get a bee in my



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bonnet and it's very hard to sway me from it. Ten to twelve years ago, I was convinced that MIDI was going to turn the music industry upside-down. I think now there's going to be an even greater revolution as digital audio takes over and as the studio moves inside the computer. That's one of the reasons why I'm pro-Jungle. It's because it may be the first underground music where the computer is a major part of it—not just as a MIDI sequencer,

**"Deep Listening is listening all the time and reminding yourself when you're not listening... Listening under the surface, understanding that there's lots of different ways of listening. Even though we're hearing all the time—our ears are open all the time—we might not be listening to what is coming in, what is present."**

— Pauline Oliveros, Deep Listening Band

but digital audio. It requires more control over the samples than you can get with a traditional sampler. The music is technological, and you need a new trick every week. And the only way that you can progress is in the digital domain. And it's very interesting to see the industry's reaction to Jungle, which is of course utter horror, panic, disgust and disbelief that the underground dare assert its own voice instead of consuming triple-packs of M-People remixes.

**M2: Can you define Jungle for me?**

MMM: I'm very wary of defining anything. And anything I would say would be out-of-date by next week because Jungle's in a total state of flux. First of all, the industry's exploiting it. You pull that off successively, and soon it'll be a total free-for-all. Purists will always find themselves backed into a corner. Record companies aren't in the business of delivering new music. They're in the business of suppressing new music and trying to get you to buy the old shit in fifteen different formats.

## MOVING THE GOALPOSTS

**M2: But you're always going to have the problem of once something becomes commercialized then it's no longer a pure format.**

MMM: Well, that is an inevitable process. And if you try to set up arbitrary purist rules and you maintain them, you end up in a "rare groove" situation. There's very much a retro-tendency in house music to say, "Oh well, it was a golden age five years ago, so if you just play lots of records that are five years old, then we can forget about all of today's problems."

Over the last seven years, you've seen this emulsion separate out, and now people are effectively going back to their roots. Those who were disco bunnies are going back to making disco music, and those who were into avant-garde or psychedelic music are going back to their roots, too. Clubs are so segregated. You go to one club and you'll hear 135 BPM all night, you go to Rotterdam and you'll hear 220 BPM all night. I must say, I don't understand it. I find it impossible to understand DJs'



motivations. I guess some of them are paid to play it, but others don't even have that excuse. There are all these unwritten industry rules. You have to play all the new releases the industry wants to sell to their priority marketing targets.

**M2: Do you think ambient has had some kind of positive impact on what's being played now on the dance floor?**

**MMM:** Well, ambient had to happen. As soon as the dance floor was recognized as being an important tool, DJs lost the freedom to play whatever the hell they wanted. So the ambient room's done so many things. It's actually helped to establish this idea of "listening techno." It's no longer about having one track that the DJ's going to mix in. It's, "can you make an album that's consistently interesting to listen to all the way through, again and again and again." There's not just one dimension. All the textures have a different feel and it maybe even has some content or substance or some coherence to it. That's basically raising the stakes. But the essential, unwritten contract that you have with the underground is that you make great music in your bedroom, without marketing, and it will reach around the world and change people's lives. It still holds true, but the industry's always trying to plug all those leaks. I'm very optimistic about America and very pessimistic about England for that reason, because I think in England the industry's had much longer to shut things down, longer to understand how they can collectively defraud the underground. **ME**

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MMM's website is (for the UK) <http://www.southern.com/MMM/homepage.html>, or (for the US) <http://www.mit.edu:8001/people/trellos/homepage.html>.



by Spiros Antonopoulos

**Addicted to Noise**

<http://www.addict.com/ATN/>  
First music magazine on the web. Includes downloadable sound samples from new album releases.

**Albert Kuvezin and Yat-Ha**

<http://www.cunet.fi/womad/english/yat.html>

The music form Tuva is like no other. Their overtone throat-clicking shamanic vocal techniques are as curious as they are wonderful. Download a sound sample and listen for yourself! This page introduces us to two of Tuva's better-known musical ambassadors and provides plenty of links to explore more about their country, culture, and musical techniques.

Co-founder Jason Olim says they're planning to have music video clips, audio clips, artist photos, 30,000 album covers, fan clubs/discussion groups, and major bands playing in their web space soon.

**CNMAT**

<http://babbitt.cnmatt.berkeley.edu/>

The Center for New Music and Audio Technologies is an interdisciplinary facility for musical research, composition, performance, and study, and is part of the Department of Music at the University of California, Berkeley.

**EPSILON: The Ambient Music Information**

Archive <http://www.hyperreal.com:80/ambient/>

are encouraged to download the soundfiles listed and rate them aesthetically according to their taste. These ratings then influence their "offspring"—the next generation of sounds (determined by genetic algorithms), which are then voted on...

**Hearts of Space**

<http://www.hos.com>

Playlists, album art, and sound samples for this syndicated radio show

**The experience of sound is quaquaversal: every-which-way all-at-once, like the scattered links in webspace.**

**Bibliography on Synthesizers, MIDI, Computer and Electronic Music**

<http://www.msen.com/~ecook/bibliography.html#other>

An absurdly comprehensive and meticulous listing. No fancy downloads, just an amazing bibliography on various aspects of electronic music.

**CDnow! The Internet Music Store**

<http://cdnow.com/>

The largest collection of CDs for sale, with over 100,000 titles, including most indie titles. Has info on each CD, artist bios, and the comprehensive All-Music Guide built in. CDs can be ordered online by credit card. CDnow!

Brought to you by the delicious Net encounter cultural archivists at hyperreal.com. This is ambient heaven—the first place to look for any ambient experience.

**Fractal Music Project**

<http://www-ks.rus.uni-stuttgart.de:80/people/schulz/fmusic/>

A colorful gateway to the sounds of recursion with a bouquet of bifurcating links to other self-similar websites.

**Genetically Programmed Music**

<http://nmt.edu/~jefu/notes/notes.html>

Cool concept: browsers who are capable of filling out forms



that plays the best space and ambient music.

Send e-mail to [playlist-request@hos.com](mailto:playlist-request@hos.com) to get the playlist automatically.

#### Imaja BlissPaint

<http://www.imaja.com/Imaja/>

Info on how BlissPaint is being used to interact with music at live events. Animations that react to sound or MIDI are available for download. Other Imaja info rests here as well.

#### IRCAM

<http://www.ircam.fr/>

At the core of the algorithmical music biscuit lies IRCAM, an excellent, and perhaps crucial, resource for experimental musicians (which also has close links to CNMAT).

IRCAM, of course, is the *Institut de Recherche et Coördination Acoustique/Musique* in Paris. Includes users groups, tutorials, cutting-edge software, and assorted other info.

IRCAM develops, distributes, and maintains over a dozen major MIDI/sound processing applications—all exploding beyond the linear confines of Western notation and tape.

Leeds University  
Department of Music

<http://www.leeds.ac.uk/music.html>

There's a wealth of info here on CSound, a multi-platform sound synthesis shareware utility that obliterates any previous concept of orchestra.

There are also various links to more academic concerns in music.

#### MACOS Information

<http://www.io.org/~halvx2/macox.html>

Musicians Against the Copyrighting of Samples.

A collective of media ecologists who realize that the electronic media environment is a public space.

#### Monroe Institute

<http://zeta.cs.adfa.oz.au/Spirit/monroe-inst.html>

Info on the Monroe Institute's psychoacoustic research and links to info on hemisync techniques (a CIA favorite) and technoshamanism.

#### Musical Web Connections

<http://www.columbia.edu/~hauben/music-index.html>

Magazines, musician and band home pages, label info, and more links to anywhere else related to any style of music in WWW-land.

#### SOFA

<http://www.sys.uea.ac.uk/whatson/SOFA.HTM>

A relaxing and entertaining presentation of a slow and romantic night out in the UK. Lots of couch icons and groovy soundfiles.

#### Sound Photosynthesis

<http://www.photosynthesis.com/home.html>

Spoken word heaven. Info on 2000 audio and video interviews and lectures from your favorite explorers of mind and consciousness. You know the names: Leary, Lilly, McKenna, Wilson, etc., etc...

#### Symbolic Composer

<http://www-ks.rus.unistuttgart.de:80/people/schulz/fmusic/symbolic/mainpage.html>

Go ahead and download a demo copy from this site. Amuse yourself with the rantings of Peter Stone, author of Eworks and Symbolic Composer. Learn quite a lot about symbolic composition and the future of music along the way.



**Structure is fragmenting; exploring is now. This is a key to the exploding ambient music phenomenon.**



# Knitting patterns

Our modern manner of living is no longer conducive to developing the abilities that are necessary to hear acutely. Our present time-oriented society does not foster the emotional aspects of life nor does it allow time to just listen. It is important to the continued development of the human race that the experiential aspects of hearing be specifically fostered and cultivated because they are the most enriching of human experiences and are the experiences capable of the finest possible nuance and variation.

—Mark Anstendig, The Anstendig Institute

BY GENESIS P-ORRIDGE • ILLUSTRATION BY HEIDE FOLEY & LIOR SAAR

**Electronic Music:** loads of people making music which for all intents and purposes do not take psychedelics, don't fuck themselves stupid, and don't dance and don't trance. They're basically hidden away in their mom and dad's metaphorical bedroom assembling formulae in a very conservative way and then perpetuating their own insipid concepts by excluding anyone who's radical.

That's my opinion on what people pass off as ambient music, which is just knitting patterns for the insane, right? It's all so boring. Give me the psychedelic Beatles any day!

There's a terrible lack of imagination. There's no telling us a story. It's new age music of the worst kind. The attitude seems to be, let's make it so *pleasant* we've

## FOR THE INSANE

wandered over, written a letter, had a divorce settlement and forgotten the CD was playing. What's the point of being lulled yet again into lethargic numbness?

People don't want to just have the same old three bits of analog Roland equipment puttering away like an old car, do they? Most of these musicians are car mechanics really. They know how to tune the car and make it run nicely. They're all poison oily rags; they don't wear corsets and miniskirts and stockings. I like romance and glamour and distortion. The whole point is to give so many possibilities we're dazzled and confused. Isn't that why people use drugs? People want to be randomized, scared, excited. They want to be told they have to give a blow job to 28 people or they won't get their dinner.



ALDO WEBB





**Most of these musicians are car mechanics really. They know how to tune the car**



**and make it run nicely. They're all poison oily rags; they don't wear corsets and miniskirts and stockings.**

DJs are an artifact of 19th century thinking. We're talking about manual dexterity. It's like the plates on the sticks with the clowns in the circus. We don't need to be in that circus anymore. When I mix live, it's *glambient!*

What I'm doing on tape is expressing the quest for the primal vision. And that is something incredibly powerful and magical. Something very, very underestimated in terms of the power of sampling.

We can take one chord played by John Lennon that was otherwise never available. But what's interesting about that is not the opportunism of getting it, it's the fact that you then have all the *intention* of John Lennon as he struck that chord. And if you have Ringo Starr's snare, then you have everything ever connected to the Beatles from the very beginning to the very end, and everyone's memory of them up 'til this moment in time. Everything they ever thought, and every life they led—it's all contained within that one sample. In the same way that with a hologram, if you smash it, the hologram is in every fragment.

So sampling is a mystical experience. Each sample is a doorway to an infinite universe of experience of life, thought, nostalgia, an immeasurable number of people who were connected with whatever the sample came from. I encourage people to sample our music. What's happening is you're contributing to clusters of attention. It's an immense pneumatic effect. If you direct them to particular reservoirs of sound, then you will affect a very wide range of future music products without even moving. If you have a favorite thing like a flanging technique and make it available, in a year or two the general music will tend to include that effect, so you will affect the entire aesthetic as opposed to individual products.

There is no quaquaversal (pointing in every direction simultaneously) music yet. Ambient music stays very centralinal (pointing nowhere). It's like a friend of mine in the 60's who would gather bits of movies from trash cans in London and then he would assemble them into a movie called *The Longest Most Meaningless Movie in the World*. The longest most meaningless movie is showing all the time: every bit of television, every bit of film, every xerox, every home movie, every synthetic image. We're still watching it. Mundanity and banality are the order of the day.

My life is like being the trashman. I have to keep collecting and dumping somewhere... I dump them on the public. We have just released a track *Mindfeeled* on a double CD compilation called *Trance Atlantic* from Volume Records. Ours illustrates sonically the peculiar sound one hears at the beginning of a DMT experience. Most of the other music on the CD is not trance-like at all unfortunately, nor is it hallucinogenic, which would come in a good second.

With Larry Thrasher we're creating the *Electric Newspaper*—it's being born kicking and screaming from the great wet pussy, as Brion Gysin said. It's a library of 40 years of collecting noises—every sound that is unlikely for other people to find or is processed in a way they would not expect. With all our recordings now, we do a separate fully instrumental mix so people can sample them. Anyone who wants to can access and use them freely in their own productions, including entire rhythm sections—they can have the whole lot. We're assembling them in 74-minute segments on CD and later CD-ROM. They're not indexed. If you try and sample it you have to put some effort in like we did and you rearrange it.

The great gift of all this technology is its ability to collect, index, and give away free the maximum amount of information in the fastest time. Every sound ever recorded in any medium is now available to everyone, at least theoretically, and ultimately in reality. Any combination of assemblages and collisions is possible. All of us are in a place now where we can build any sonic landscape we imagine. We can build worlds that never existed before. The real implication is that we all become deities—genderless deities, transhuman deities. The synthetic reality of consensus reality is now revealed for what it is: a malleable medium, a transmedium as I call it, or infinite possibilities. The product is no longer important; it's the process that matters. We should all live in a big box of clothes and when we come out we're someone else. **M.E.**

*Electric Newspaper is available quarterly from Invisible Records. You can be a "staff writer" for the next ish: send DAT, chrome audio cassette, or Sound Designer II files to Transmedia Foundation, P.O. Box 1034, Occidental, CA 95465 (include large SASE for a newsletter). While waiting for the Electric Newspaper web site, you can access PTV emailzine at PTV4UNE@source.island.net or check out <http://www.process.usc.edu>. Psychic TV's Trip Reset is out in May on Cleopatra Records.*



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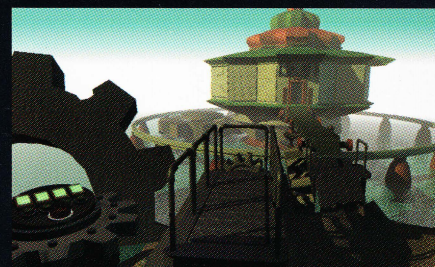
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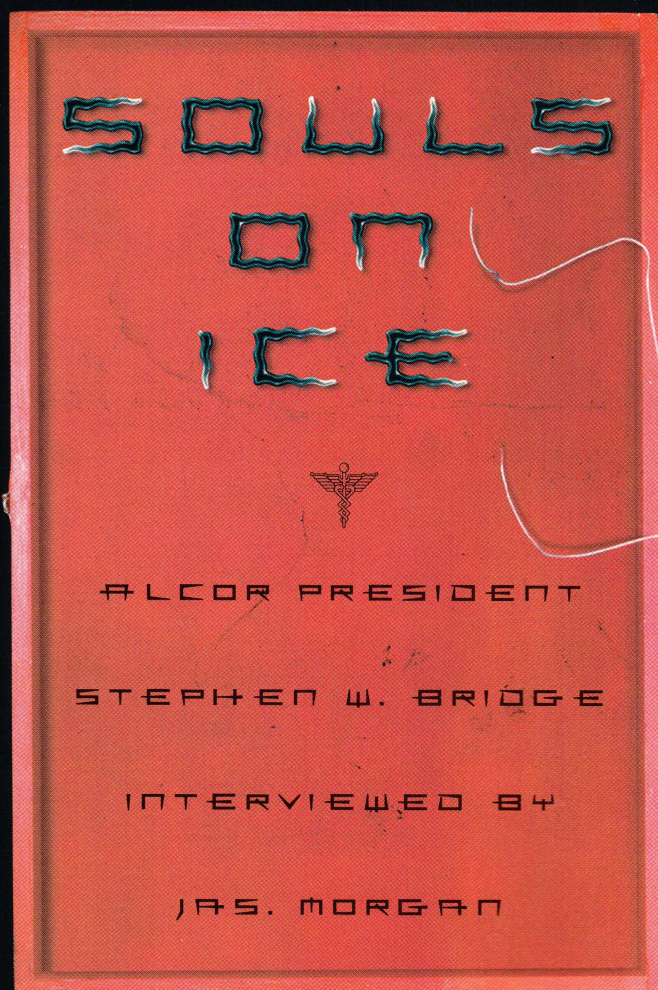
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DEATH

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YOU CAN EASILY CLEAR A ROOM BY STARTING A CONVERSATION LIKE THIS ONE.  
IN FACT, SOME WHO READ THIS ARTICLE MAY ALREADY HAVE TURNED THE PAGE.





BOX ILLUSTRATION BY KIM WELLER



# CHILLY WILLY

I recently attended a cryonics party in Los Angeles. It was a motley crew: lawyers, poets, musicians, doctors, extropians... and Alcor president Stephen Bridge. What brought this group together was the common resolve not to accept the traditional two-choice limitations of burial versus cremation. Cryonics people challenge our concept of death by choosing a third option: to utilize cold temperature/medical technologies to preserve the body (or in many cases, brain only) until future science discovers the techniques for "reanimation."

Cryonics people are betting on an optimistic future. And if they're right, the pay-off will be profound. The game of aging and dying will be seen as a necessary—if temporary—evolutionary stage that we were required to pass through. We will have rewritten the death contract.

—JM





## CORPSICLE

**MONDO 2000: Let's assume that I know nothing. What is Cryogenics?**

Stephen W. Bridge: You actually know less than nothing because you got the name wrong!

**M2: What?**

SB: It's cryonics. Cryogenics is the general branch of physics and technology that deals with cold temperatures. Cryonics is specifically using cold temperatures to freeze human beings that have just been declared legally dead for possible repair and revival in the future.

I guess the basic thing that we're trying to do is we're redefining what the word "death" means. What "dead" is. Over the last fifty to seventy-five years there's been a lot of that kind of stuff going on. Seventy-five years ago, if someone had a heart attack and stopped breathing, they were considered dead right away. Because we didn't have CPR and defibrillation and paramedics and all the heroic measures they have today.

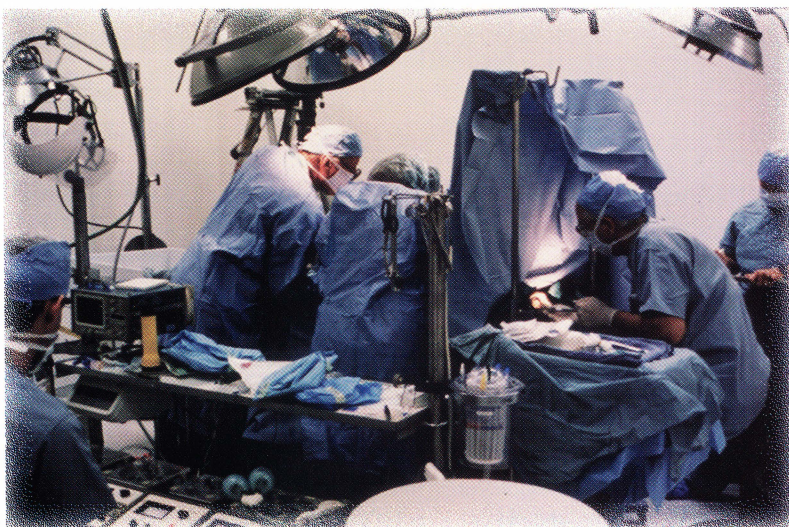
Now, if someone has had their heart stopped for ten minutes, we don't necessarily say they're dead. We say, "We don't know yet, we'll see what we can do." Even more than that, though, because we have had situations over the last twenty-five years where children have been drowned in cold water, or appeared to drown... It's been very common for children to survive 25 to 30 minutes under water in extremely cold temperatures. And the record for that now is 66 minutes under water in Utah several years ago, where a two or three year old child got caught in a icy river and was under water 66 minutes before they could pull her out... and had no brain activity for another couple of hours... while they did resuscitation on her, got her to the hospital, got her blood warmed up and, ultimately, she survived with no neurological damage.

Now what's interesting is the question that people ask in that situation. Twenty-five years ago if you pulled a child out who'd been, say, 15 or 20 minutes under water and you were to ask, "Is that child dead?" a doctor or paramedic would say, "Absolutely yes, they're dead." Today in that same situation, or even a much longer time under water, if you pulled a child out, and you asked, "Is that person dead?"... the answer is, "We don't know yet..."

Death is being seen as a *progression* of events that can be reversed in many circumstances and at many different times. So the question is what actually is "dead"? We know a skeleton is dead. We know someone walking around and talking is alive. In between there's a very long progression of changes that might be reversible up to the point when the information in the brain that makes us unique individuals, when that disappears. If that information in the brain can be held there, and the person can be made to function again, then we would say that person had not died.

Say a hundred years from now, if it's possible that someone could go for two or three hours after no heartbeat and be revived, we probably would say that in the intervening time that person was not dead. We would just say that was a "we don't know yet" situation until we can revive them.

WE MAY SEE  
A LOT MORE  
PEOPLE GOING  
INTO CRYONIC



SUSPENSION  
WHILE THEY'RE  
STILL LEGALLY  
ALIVE

What we're doing with cryonic suspension patients is we're taking people who have been declared legally dead by the criterion of medicine today, and holding those people at 320° below zero Fahrenheit, minus 196° Celsius, in liquid nitrogen, so that they're not going to change any further. At that temperature there's not any chemistry taking place. Everything is a solid, molecules can't move together to interact. So at that temperature it's suspended animation, or it's suspended we-don't-know-yet.

At that point, though, the person's not getting worse. And they can stay at that temperature for hundreds of years, or probably thousands of years without change until technology gets to the point where they can evaluate that person and say that person's identity is still there or they're not still there. Even past the point where their identity is gone, probably the person will be able to be cloned. The DNA would last much longer than that. But DNA is not who we are. DNA just sets up the base plate to build the individual on. And then it's our experiences, what has happened to us...

**M2: What are your scenarios for reanimation?**

SB: Two or three different possibilities. Certainly one possibility for some people might be to take that pattern and upload it into a very fast large memory computer, and recreate the individual at least as far as what they felt like, inside a computer. Or inside a computer-like object.

**M2: So reanimation as silicon-based life...**

SB: Right. I think that's probably possible, although I tend to think it may take more than a hundred years for that to be accomplished. Not because we won't be able to build computers like that soon enough, but I think it will take longer than that to understand how you make the read. It's going to take a lot of research because probably the kind of read you're going to make is going to be a destructive read.



At least with most of the kind of styles that I've heard talked about today, they would have to disassemble the brain to read it completely. So you only get one chance at that. Unless... I suppose it's possible that you could then reassemble the brain, too.

I think more likely to happen sooner than that is that we will learn to repair the meat structure of the brain and be able to revive the person physically. And then let them make the choice as an individual whether they want to have their bodies modified in some way, or whether they want to go "all metal" or "all plastic" or "all silicon," or whatever. Let individuals consciously make that decision themselves.

**M2: So silicon-based, carbon-based... Are there any other strategies possible for reanimation?**

SB: Combinations. I think that we could well have people who are primarily biological but enhanced with machines. So you may have an external memory. Actually you could have what would be like an external memory, internally. One of the things about nanotechnology research that we're seeing is it seems very likely that we're going to have computers that are at least as powerful as 486s, or maybe even larger than that, smaller than a cell. And with memory storage so that the Library of Congress could be squeezed into something the size of an earring.

You could have an implant in your head very easily of something the size of a few cells which would be a supercomputer which would add a huge amount of memory, a huge amount of processing power to your brain. It wouldn't be visible from the outside. So I think that combination is possible too.

Most likely what will happen first is that medical versions of nanotechnology will give us the ability to repair human cells, including neurons. And then we will be able to... If cryonicists are preserving the structure of the brain—if these freezing techniques are not losing something along the way before the patient gets down to nitrogen temperature—the structure and who they are is still being preserved—and then we should be able to reverse the processes that got them into that state that was called "dead" in the 1990's. Nanotechnology should be able to reverse that. We're all made of atoms and molecules. And nanotechnology means manipulating molecules. As long as there's not something in us that's not made of atoms and molecules, which I personally find difficult to comprehend, then who we are appears to stay... the structure appears to stay viable for many hours after someone's been declared dead, even at room temperature.

In real good situations, what we do as cryonicists is we're there at the hospital. And as soon as the physicians have given up and pronounced the person legally dead, within minutes we are cooling the person, putting medications in them to prevent blood clots, to reduce brain pressure, to reduce the need for brain metabolism... and doing CPR to spread the medications, make sure that they get to the brain, and to cool the patient even faster.

**M2: What's the rest of the process?**

SB: We have about 350 people who are signed up right now. Almost all of them are healthy. Half a dozen people or so are long-term terminally ill. We don't have anybody that we're standing by on right now that is likely to die in the next few weeks. Although you get surprises sometimes! The last person we suspended last spring had a sudden heart attack. So these things happen. Primarily people sign up for cryonic suspension when they're fairly healthy.

We're nonprofit. People have to be able to pay for this themselves. The least expensive way for most people is life insurance. Someone in their thirties or forties signs up for this... they can pay 60, 70, 80 dollars a month for a life insurance policy. Someone in their twenties much less than that. And that life insurance policy will pay off with Alcor as the beneficiary when they're declared legally dead.

That's what probably 90% of the people we have signed up have. Some people have a trust fund or other kinds of things set up.

**M2: What are the costs?**

SB: It's \$120,000 for whole body suspension. \$50,000 for neurosuspension where only the head is frozen. The reason the price is so high is not because it's so expensive up front... Whole body suspension for us probably uses up \$30,000 to \$35,000. But then we place \$70,000 or so in a *special investment fund* so that the costs of ongoing care can be paid for by the income that's generated. So you don't have situations where people get thawed in twenty or thirty years because you used up all the principal. You've got to go real long-term on this and that's why the price is so high.

**M2: Will this also cover the costs of reanimation as well?**

SB: Right. We're trying to get things set up so that if we can invest money well enough, we get considerably ahead of the expenses. So there should be money available in fifty or a hundred years and various compound interests to provide the money to do the research and the actual reanimation of the patients.

Now it may turn out to be that it's more expensive than we think. Certainly the first few will be more expensive. I have a feeling, though, that it will be like computers. It may cost you a billion dollars to develop a computer and then you sell them for a thousand dollars each. And

it may well be that that's what happens here. That it takes a billion dollars to develop the revival techniques, but once they get started, it becomes comparatively standardized and less expensive for each one after that.

That's a little hard to tell right now. But if there are thousands of people in suspension, they will have hundreds of thousands of relatives and friends who will still be alive at the point when reanimation becomes possible. And then it may well be that if we don't have enough money, it is possible that their family and friends will assist with that kind of research income. It's a little hard to predict sometimes what's going to happen a hundred years in the future.

**M2: How does one sign up?**

SB: You have to sign a bunch of paperwork. Legal documents. One of the most important ones is an *anatomical donation form*. Basically you're donating your body to Alcor for research.

And it's a very specific research. And we tell you the research is to freeze your body and hold it in that state until the research gets to a point where we can attempt to reanimate your body. And the money is donated also to Alcor as a nonprofit...

And then at that point you just go on about your life basically until you hear from your doctor that something's happening to you and that you may not have very long to live. And you make sure Alcor knows at the point where you go into the hospital and the Alcor team can be there waiting until it's our turn.

We all wear bracelets to identify us as suspension members. That gives the doctor a phone and code number in case something happens suddenly. This has happened a couple of times. One was a homicide situation and one was a suicide and we got a phone call quickly. So we could then decide what we were going to do and head toward where the patient was.

**SUB HEADS**

**M2: Is there some kind of "buddy system" for Alcor members of close friends or associates who pledge their assistance when it's time for deanimation?**

SB: For a lot of people there is. Some of that has to be set up by the individual. If you're in southern California we've probably got fifty or sixty cryonicists here. If you're in Nebraska you're going to have a little bit more difficult situation! [laughter]

THE  
ICKY FACTOR  
IS  
VERY HIGH  
IN THIS



We do have teams of trained people, though, at various places around the country. We've got several people in New York. We've got individual people training in Atlanta, Indianapolis, Chicago... several people in northern California. There's extra equipment in Florida, Indiana, New York and Canada. So that your odds are increased if you are near these kinds of "concentrations." And if the people in that area know who you are and you've got a lot of contacts with each other, obviously your odds are increased.

And maybe when there are 20,000 cryonicists around or more, there will be dozens of those kinds of "seed points" around the country.

**M2: Once legal death is declared, how does the Alcor team go to work?**

SB: We'll have a team of as many as six or seven people if they're in an area where there are a lot of other nearby people to assist. The minimum we would have is perhaps two to three people waiting at the hospital or the nursing home or sometimes in the person's home themselves.

And as soon as the doctor declares death, that means that Alcor has custody of the person through the anatomical gift... At that point the responsibility shifts from the hospital to Alcor.

**M2: Are the members of the Alcor team usually specialists?**

SB: Some are general and some are specialized. Tanya Jones is our Suspension Team Leader. Tanya has had a lot of training doing suspensions for several years. She has more of a business background as far as her educational background goes, but has taken a lot of private training on how to do the various technical things that are required.

Usually Hugh Hickson will be there, who's our biochemist, and also a kind of amateur engineer type. He's one of those people who knows how machines work, can string pumps, can set up a lot of physical things.

And then usually there will be several other people there who have training of various kinds. We have some nurses, we have EMTs... people with a lot of different backgrounds like that depending on the situation and depending on who's available.

I was a children's librarian for a number of years but I also got an EMT certificate and have participated in five or six suspensions myself. We have someone else in northern California who works in a doctor's office and is an EMT. So a lot of different kinds of backgrounds.

And we have private training courses that we hold to get people to understand the basics so that even if they're not front line, they can at least be very helpful in doing CPR and knowing how to hook up some of the basic machines, and how to be the extra hands for people until they get more experience and more training.

**M2: So how does the process begin?**

SB: The best situation is if it were in driving distance of Scottsdale. Because we have an ambulance fully equipped and we have a special machine that's basically a bathtub on top of an operating room on wheels. And the whole thing is one big unit that we can roll into the hospital. We have similar equipment that we can ship to a hospital elsewhere... It's much more complicated to use that way because we can't assemble it all into one big unit again. And usually it wouldn't fit inside a rental vehicle somewhere else anyway. You usually can't go to Hertz and rent an ambulance! [laughter]

You have to either contract with a mortician—frequently we'll do that—or find a mortician with a big van, or we'll rent a big van locally.

**M2: What kind of equipment do you have and how is it used?**

SB: On top is a very large bathtub, made of naugahide, basically... There's a heart/lung resuscitator, a mechanical CPR device... There's an underwater pump and a distribution system we call a "Squid" so that when we place the person in the bathtub, we'll put a couple of hundred pounds of ice in, and a couple of buckets of water, and start circulating the water very rapidly around the person... That drops the temperature much more quickly than just packing the person in ice. Maybe another 30% to 40% more quickly.

So that's number one. We want to get the person cooler because of what we know from the research on the children drowning in cold water—and also from surgery for aneurysms. Typically what they do is cool the person down to 50°F and shunt the blood out of the brain and do the surgery without blood pressure so that they don't blow the aneurysm while they're doing the surgery. Then they can warm the person back up, put the blood back in their brain, and then they're OK. We know that cold temperatures, on their own, offer a lot of protection. So we want to get that person cool as soon as possible!

Normally a person dying in the hospital will have an IV line in them already. If they don't we'll put one in. But normally we're gonna use the IV lines that are already in. And we add about twenty different kinds of medication. First Heparin to prevent blood clots. Potassium chloride or Phenobarbital of some kind... Some kind of chemical like that

to depress the brain metabolism so that the cells can stay alive but in a less active state. Something to keep the acidity level of the pH proper. A chemical to reduce brain pressure. Calcium channel blockers to prevent calcium from traveling into the cells and starting a number of chemical reactions that typically do a lot of brain damage. A lot of things like that. And then we're doing the CPR. First manually but very quickly with the heart-lung resuscitator, "Thumper."

Now that's all kind of on the surface. Underneath that we have two oxygen bottles, number one to provide oxygen for the patient, also

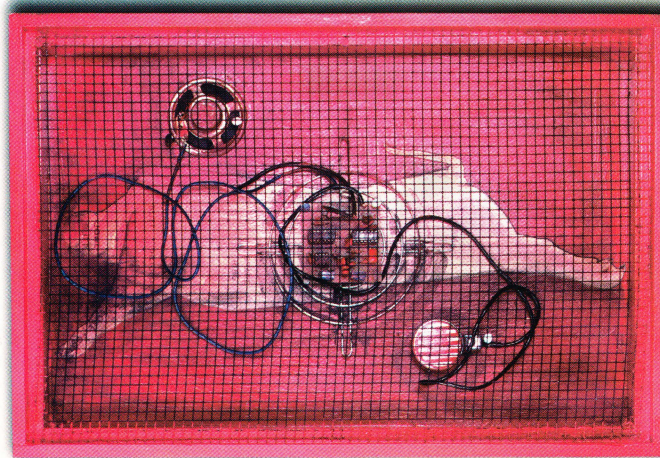
to run the heart-lung resuscitator. It runs off of the pressure of the oxygen. And then we also have a series of pumps. Because once we get the person out of the hospital, typically we'll rent a facility from a mortician if we're very far away from Alcor so we can use their preparation room. We don't use their equipment, typically, except in rare occasions. What we need is a place where we can work where people aren't disturbed by having legally dead people sitting in their room!

Also, if we're out of state, the mortician knows how to get the death certificates processed and the transport permits... they know how to deal with the airlines if we have to fly somebody. They know all the local rules. And morticians are not freaked out by this sort of thing at all. And morticians are capitalists and they like receiving a fee for assisting, so... [laughter]

**M2: Right!**

SB: Morticians are actually some of the more flexible people in the country. [laughter]

So, at that place we do a femoral bypass. We will open up the femoral artery and vein in the leg and hook up this pump to it. And we will, at that point, then flush the entire vascular system of the patient. Wash their blood out completely and replace it with the same solution that DuPont makes that is used to flush hearts and kidneys for transplant. And we know that solution can keep organs alive sometimes as long as 24 hours if they're cool. And if they're gotten to quickly.





It looks pretty sure that that works for brains also. So we're pretty sure we're protecting the brain cells at that point.

That's where the dog work comes in. Now, one lab has gotten up to the point of having a dog washed out completely for five and a half hours, cooled down to just above freezing, and then be able to warm that dog up, put blood back in it, and have the dog walk away from that, brain intact.

## HEAT AND SERVE

**M2: What's your take on Paul Segall's work?**

SB: Well, Paul did some interesting things. But Paul had only done them for 15 minutes. And Alcor at that time had already taken dogs down to that temperature and held them and warmed them back up after three hours. So... I'm not out to trash Paul, but... It's too bad that publicity gets done that way though, where so many of the people who write articles on science for magazines and newspapers know very little about science and don't spend a whole lot of time going out and researching the background to see if what they've been told fits in very well. And in that situation Paul got a lot of publicity for something that was not as elaborate as other people were doing. I think Paul is probably doing some interesting work right now. He's one of several researchers working on blood substitution. And I think he's maybe come up with some really interesting work that way.

**M2: So once you've gone into the femoral artery and vein, flushed everything...**

SB: Flushed everything... and also at the same time, we're cooling the patient even more rapidly because this fluid has been pre-chilled and it's going through the heat exchanger. So the temperature is being reduced even more rapidly now, down to two or three degrees above freezing.

At that point the circuit is closed off, the patient is covered in ice, and then either driven or flown to Scottsdale, Arizona where the next set of procedures will take place.

At that point the person comes into our operating room in Scottsdale. And our thoracic surgeon, chest surgeon, comes in. And an MD, a couple of operating room nurses... we have a person who runs our perfusion pump... probably a team of maybe twelve to fifteen people working on this. With the key being the surgery at the beginning.

We do open heart surgery... do a heart bypass, basically, using the heart-lung machine. The same sort of thing that they use for a bypass in hospitals. And what we're trying to do at that point is get really tight control of the circulation because we're not just going to do it for half an hour or so like we do in the femoral bypass. We're going to do it for several hours. And we want to make sure that if any clots or breakdown develops around the heart—say someone may do surgery on this person and discover that they had a heart occlusion of some kind, or they had previous heart surgery—we want to be right up there where you can control things so you can definitely get the fluid to the brain.

Because what we're going to do now for the next several hours is replace sometimes as much as 70% of the water in the patient's body with glycerol. Which is the medical grade of glycerin. Glycerin is used in all kinds of shampoos, hand creams, and many different kinds of things.

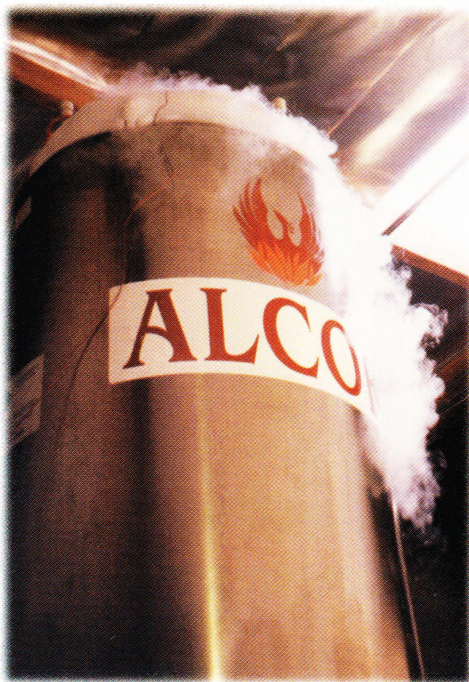
What is interesting about glycerol is that it prevents a lot of the damage that occurs in freezing. Freezing damage is normally caused by water turning into ice. When water turns into ice it expands and it

forms crystals. The ice typically forms in between cells, not in the cells, because there are so many salts in them, it's hard to freeze. So water starts freezing between the cells and as it expands it crushes them and pokes holes in them, more fluid comes out and creates a lot of damage that way. The concentration of salts inside the cells goes up a lot higher and you have basically toxic effects, poisoning effects from that.

Glycerol does not expand when it freezes. And doesn't form crystals. It basically vitrifies, turns into a glassy substance. So the more glycerol that you can get in, the better. Once the concentration of glycerol gets very high then it's hard to pump. It becomes like a syrup. But typically we can get about 70% of the water out and glycerol to replace it.

Glycerol is used to freeze sperm and human embryos and corneas and skin. All kinds of things.

One of the kinds of research we're looking very carefully at right now... There's been a big American Red Cross program for many years in organ freezing and organ preservation. And this has recently switched to the Naval Medical Research Laboratory and may eventually be taken up by some universities. But right now that program is being worked on at the Navy.



And one of the researchers, Dr. Gregory Fahy, looks like he's very close to vitrifying rabbit kidneys. And, of course, if he can do that, they can actually start doing kidney storage and they can transfer that to human kidneys. That will be a major boon for kidney transplants in the United States. About half of the kidneys that are available for transplant are not able to be transplanted. You can't get them to the right place fast enough, or you can't find a match with the right person. If you could take kidneys, and as soon as someone dies and donates their kidneys, if you could freeze them very quickly or actually vitrify them very quickly, hold them at cold temperatures, then you've got time to do tissue matching, you've got time to get them to whatever place needs it the worst. And that can be a major change in the way that organ storage is done.

Those kind of techniques are going to be useful for us, too. Because the kinds of things that Dr. Fahy and others develop for organs should also help us to understand how best to preserve brains. For people

who have whole body suspension, you want to do their whole body as well as possible, but the thing you don't ever want to compromise is the brain. So we're watching those kinds of techniques very carefully.

It's possible that some time in the next few years we'll use something either different from glycerol or in addition to glycerol. But the exact combinations of other things that will work on kidneys haven't been quite established yet and we don't know whether that exact combination will be what's used on brains.

## ICE STATION ZEBRA

**M2: So let's finish your description of the suspension process.**

SB: After the perfusion with glycerol is completed we place the patient in a bath of silicone oil. The oil is being pumped through dry ice. And over about 36 hours the patient, in a computer-controlled bath, is dropped down to the temperature of dry ice (which is about minus 110°F, minus 78°C). And then the patient is placed in a special tank wrapped in a sleeping bag and in an aluminum pod for protection. Over several days, using liquid nitrogen being sprayed in, the patient is dropped down to minus 196°C. At that point they're placed in a special



stainless steel tank, vacuum insulated like a thermos bottle, and held at that temperature until science catches up someday!

We have 27 patients—10 whole body and 17 neuropatients, where only the head's frozen—in our storage area in Scottsdale.

**M2: So how does the Pope feel about this?**

SB: [laughter] I don't know how the Pope feels about this! But I have talked to a few priests. And I've talked to a rabbi. Both of whom don't feel there's any ethical problem with this. Because what we're doing is trying to keep people alive. Jews, Catholics, Seventh Day Adventists, Lutherans, Methodists all have hospitals. And it's obvious that they want to keep people alive. I've even had a priest, two priests actually, say that as far as they were concerned that if we could ever show that cryonics would absolutely work, then they would argue that for a Catholic not to do cryonics would be suicide.

I'm not Catholic myself, and I could not enforce any such argument, but I think it is certainly possible that many religious groups will support cryonics if we can get to a point where we can show that, "Yes, this will keep people alive." And we'll give them a chance at a much longer life... a healthy life.

We have people who are Alcor members who are religious. I would say not the average Alcor member is. The average Alcor member is probably agnostic or atheist. And looking upon this as a way to stay alive in this world because they don't feel there is another one. But we have a number of people who are religious, and who feel like it's their obligation to stay alive as long as possible and no matter how. That's how they feel about their religion and life. And that's fine.

Cryonics itself is not a philosophy, it's a technology. There are certain philosophies perhaps that lend people to be interested in cryonics more than others, but cryonics itself is a technology and we accept anybody as a member who is willing to fill out the paperwork and who understands what the technology is and has a way to pay for it.

**M2: Well now that we've covered the religious, what does Newt Gingrich think of this?**

SB: [much laughter] That's a really interesting question! And I don't know for sure. However, Newt Gingrich is someone who does, at least, have a lot of interest in technology. As does Al Gore, for instance. Two people who not necessarily would invite each other to the same parties, but both of whom are highly educated men who have a lot of interest in technology. I know Al Gore is very interested in nanotechnology, for instance.

**M2: Really?**

SB: Yes. He invited Eric Drexler, who wrote *Engines of Creation*, to speak at a Senate sub-committee last year. Gore has read *Engines of Creation* and is very interested in future technologies. Interestingly, we have heard that Gingrich is also interested in future technologies and is very interested in anti-aging medicine. So, it's possible that he might think this was OK.

One of the big things in health care is that we spend something like 25% of the health care budget on people's last few weeks of life. I don't know the exact amount of weeks. There is a number on that. In the near future if we can show that there's a reasonable chance of this working, and especially if a number of states pass legislation saying that you can have assisted suicide or similar kinds of things, we may see a lot more people going into cryonic suspension while they're still legally alive. So that they don't have to undergo those other weeks of deterioration and in many cases horrible suffering from cancer or

Alzheimer's disease where they may actually *lose their identity*. Those are situations, I think, where if people want to, if they've made this choice, then they should be placed in suspension at that point. And I think it's possible that there will be a big economic benefit to doing that for the country also.

But, I don't know what Newt will think of it... [laughter]

**M2: And his ilk...**

SB: I think it's possible that there are going to be some people who oppose change, always. There will be some people who will say that God talks to them and God says this is not in his plan. There will be people who just think it too damn icky. The icky factor is very high in this. People don't want to think about death very much at all. But the idea that you'll have your blood washed out and your chest opened up and then frozen really makes a lot of people upset.

Now if those people would ever watch an autopsy, they might be even more upset at what happens to their body otherwise! Or a lot of people, if they would watch a heart bypass operation, might be upset. I mean, in a heart bypass operation your entire body is ripped open, your heart is worked on, and it's amazing humans survive that. But I think that humans are going to survive cryonics also.

**M2: How do you think that people will adjust to being in the future?**

SB: Yeah, like "won't it be horrible to come back in a hundred years or two hundred years without all your friends and that sort of thing..." Well, number one, of course, you can take your friends with you if you can talk them into it.

But also, Dick Claire, one of our people who's in suspension, was a Hollywood writer. He said that "when you go to Paris you want Paris to be different than Los Angeles. That's why you go to Paris. I want the future to be different. I want to have to adjust to new things. I don't want the world to stay the way it is."

And when you think about it, we all had ancestors that came from Europe or Asia or Africa. They had to, in a sense, jump forward in time. Come to a place with a new language, where they had to have a new career, where they may have left all their family and friends behind. Their

family and friends may have been killed in the revolution or a war. And they found ways to adjust and to have a life and to be happy. And I think we'll be able to do that too.

**M2: To finish I'd like your take on an old cultural myth. Was Walt Disney really frozen?**

SB: Most of the time when people ask us if this person is frozen or if that person is frozen, we really can't confirm or deny. If you ask about ten people and I say "no, no, no," and then you ask me about someone else and I say "Ah, no comment..." [laughter] So I have to say "no comment" on everybody.

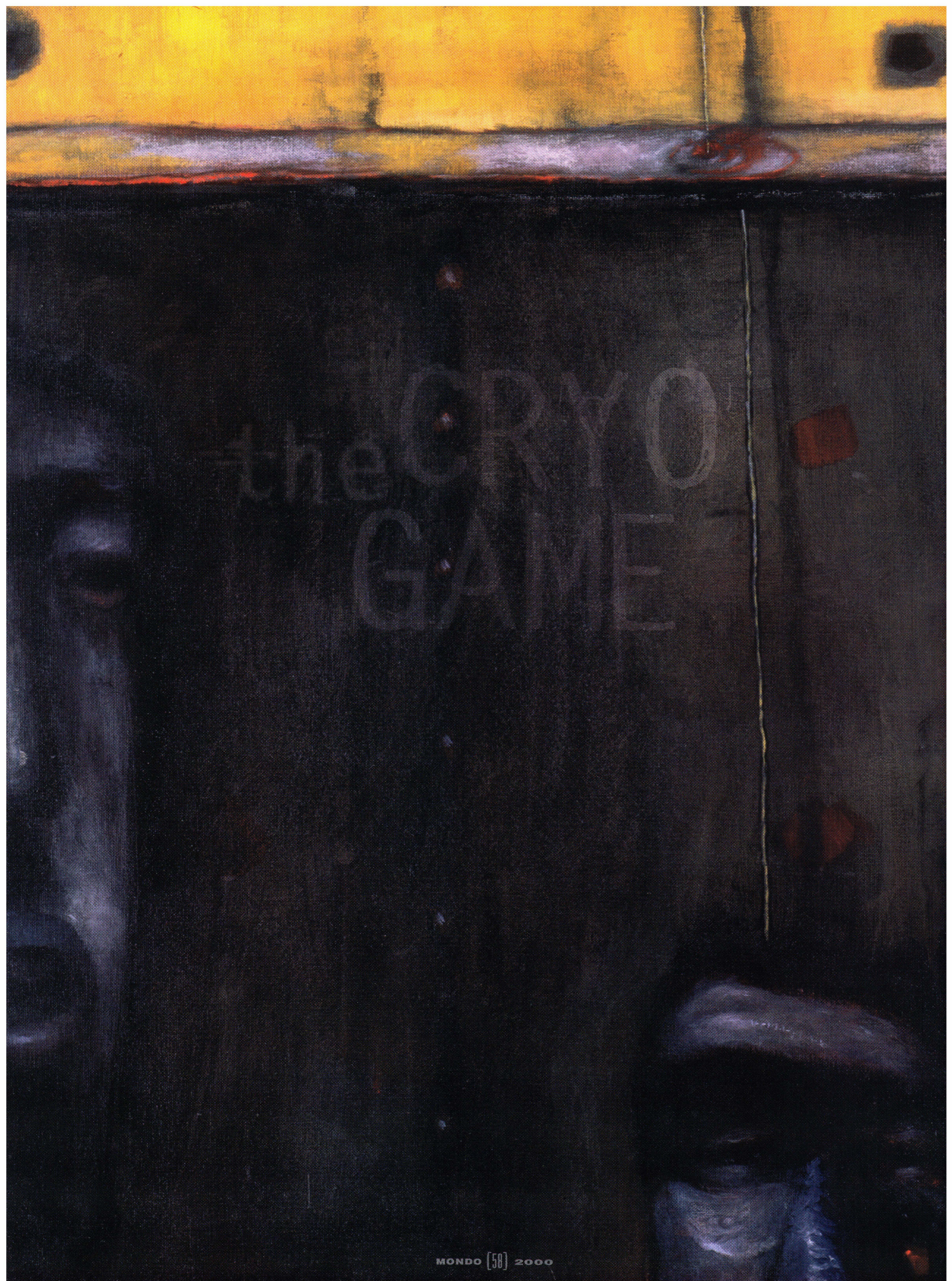
Except that. The most wild rumor and the most common rumor known about cryonics is that Disney is frozen. And it's not true as far as anybody knows. Disney died too soon.

**M2: So the technology just wasn't there at that point?**

SB: The idea was there. We have heard from people who knew him that he thought it was interesting. And of course he was a futurist kind of a guy. And it seems very likely that he would have been interested. And maybe if Disney hadn't smoked a lot and gotten lung cancer and died when he did... [laughter, as Jas. takes a puff from his cigarette] but as far as we know his ashes are in Forest Lawn in Hollywood in the family crypt. **ME**

YOU CAN TAKE YOUR  
FRIENDS WITH YOU  
if  
YOU CAN TALK  
THEM INTO IT









# Don't blame me. **Blame** it on Xandor.

He got us into this with his med alert bracelet instructing the hospital after he dies to commit his head to some cryo-SWAT team that will swoop in, slap him on a heart-lung resuscitator, drain his blood, substitute it with antifreeze and pack him in ice. Then he'll be whisked off to some place called Rancho Cucamonga where the standby team will lop off his head and store it in liquid nitrogen for 100 years or so. This with the whimsical hope that it won't be squished by an earthquake or buried in mud, that the company won't go bankrupt in the coming global depression, and that nanotechnology or some other future weird science will figure out how to overcome massive brain-cell destruction during freezing and reconstruct the brand-new full-body Xandor II for the 21st century.

Xandor had this proselytizing glint in his eye. He began to consort with others of his ilk. We decided it was time to dig deeper.

We sent Jas. Morgan down to L.A. to talk to Steve Bridge of Alcor, the company that's been the leader in the freezing biz. He came back with some pretty wild stuff. I called my old friend Saul Kent for a reality check. Saul made news worldwide in the late 80's for freezing his own mother's head. That upset the Riverside Coroner who accused him of murder and had everyone at Alcor arrested and their computers and disks confiscated. Saul and Alcor took them on in court and won.

## DISCLAIMER

We know you've got a taste for grand guignol, but this goes beyond the pale. We're talking sawed-off heads and selling body parts, OK? Strenuous stuff. If you have a weak stomach, turn to the next article or take some Pepto Bismol for chrissakes.

by Wes Thomas \* Illustration by Joe Sorren



Now he's taking on the Federal Death Authority with a First Amendment lawsuit and his FDA Holocaust Museum in Florida. He brought me up to date on current research, the Alcor renegades, and other juicy industry gossip.

I also visited Dr. Paul Segall at his BioTime, Inc. research lab in Berkeley. In 1986 Paul appeared on *Phil Donahue* with Miles the wonder dog, who was chilled, blood-substituted, and revived. He showed me a frozen hamster skewered with microminiature catheters to test various cryopreservation chemicals and eerily pale zombie rats with 80% of their blood replaced by a plasma substitute but amazingly still alive. I almost hurled.

#### VITREOUS HUMOR

Keep in mind: these are science fiction/extropian types, these cryonicists. Cross a Moonie with a hi-IQ Mensa nerd and you've got an idea of what they're like. The same type that yearns for sex in Cyberspace or uploading their personalities. They're not like you and me. And they *may* have the last laugh.

They've got a unique concept of humor, too. Here are some of their postings on the Internet CryoNet mailing list:

Q: *How many immortalists does it take to change a lightbulb?*

A: *Just one, but it may take him forever to do it.*

Q: *What is the most common marital problem affecting suspension patients?*

A: *Frigidity.*

Bumper sticker: *Cryonicists Stay Stiff Longer!*

Practical jokes to play on revived suspenders: Dress up a bunch of your friends in long white robes and wings and give the recently returned a few hours of Hallelujahs. Or turn up the thermostat, paint the walls red, and invite a few players from alt.sex.bondage; or bring them back chained to the wall and surrounded by people dressed as apes... (It gets worse.)

Another thing to remember: cryonicists are prickly about PC language. Never call their customers "dead." They're "patients"—metabolically challenged, shall we say—in "suspended animation." They don't die; they "deanimate." It's not "raising the dead"; it's "reanimation." And they're not "dead heads in a vat"—they're "neuropatients" in "neurosuspension." Got that?

#### CANOPIC CAPERS

The first attempt at preservation for a future life was circa 2500 B.C. in Egypt. Their concept was to scoop out the brains and other non-essential organs, save the heart (the seat of the soul, they believed), and mummify the body with preservatives. They sort of missed the point, eh? You preserve the *brains*, which is where the personal identity is stored—or so believe the cryonicists.

Fast-forward to 1964, when physics teacher Robert Ettinger wrote *The Prospect of Immortality* (Doubleday) and appeared on talk shows and in tabloids. This stimulated public interest but turned off scientists. Except for Japanese biologist Isamu Suda, who froze cat brains (using antifreeze) and rewarmed them, detecting brain waves.

Cryomania spread. Within two years, cryonics societies sprang up in New York, Michigan, and California, where in 1967 enthusiasts

suspended the first human, Dr. James Bedford. In the early 70's, Alcor Life Extension Foundation and Trans Time were formed in California. Alcor, currently with 360 members and 28 suspensions, took on the California Health Department, which had refused to issue official death certificates for cryonics patients, and won.

The big split in the movement came in 1992. Saul Kent explains: "Mike Darwin, one of the people most involved in actually doing freezings, formed a company called BioPreservation and began to work with doctors, professional perfusionists, cardiac technicians, and so forth, in offering this service. BioPreservation is clearly the best organization to freeze you.

"Alcor had its own team, but it wasn't nearly as good. I tried to arrange a situation where Alcor members could have the option of being frozen by BioPreservation or by Alcor. Alcor didn't want to permit this and so one of the reasons that I left, and a lot of other people left, was we wanted access to BioPreservation's abilities in this area.

"Another problem with Alcor is that the board is self-perpetuating. We really decided that cryonics had been an amateur operation for too long. The same people who sign you up, freeze you, store you, invest your money, and are legally responsible for you. There's a real conflict

of interest because you have living members who have signed up who are in perfectly good health, and then you have people who are frozen, who depend entirely on the living people to maintain them. It's beneficial for the living members if the organization spends money on research to improve freezing methods. But not necessarily for the people who are already frozen."

Saul and other renegades (Dr. Steve Harris, Charles Platt, Brenda Peters, and others) split to form CryoCare, a nonprofit membership organization currently with 100 members that contracts with outside companies. They use BioPreservation to preserve patients and take them down to dry-ice temperature, and CryoSpan to cool them down to liquid-nitrogen temperature and provide long-term care in dewars (they've got four patients in storage so far).

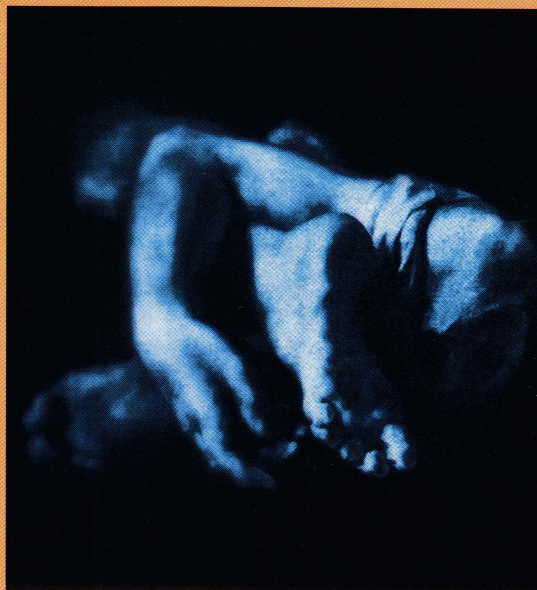
One nice touch: CryoCare lets you choose

patient advocates who represent you after, uh, suspension (gotta be careful not to say the D word). Ah, but who do you *really* trust?

As of mid-March 1995, 700 people were signed up for suspension and 51 had been suspended—unfortunately, many of them in California. What a bummer to spend \$128,000 and then be wiped out in an earthquake! Last year, Alcor moved its 28 patients to Scottsdale, Arizona and recently, CryoSpan began constructing earthquake-, fire-, flood-, and bullet-proof, below-ground vaults in Southern California. Another option is the Cryonics Institute near Detroit, which also offers lower prices: \$28,000 for full-body suspension fee plus an up-front \$1,250 fee, compared to \$128,000 with Alcor plus annual membership fees.

#### I'LL BUY A BOWEL, PAT

But speaking of costs, let's get some bottom-line perspective on all this. Like, who's going to fork over the terabucks for the necessary R&D? Well, right now, it's privately sourced from deep-pocket wannabe eternal-lifers. Plus the U.S. Navy, which is funding leading-edge vitrification research by Dr. Greg Fahy, presumably because it wants





to acquire deep-freeze organ banks of spare arms, legs, and other parts to replace 'em when they get blown off. And maybe a few eccentric billionaires, who knows?

OK, but what happens when Big Money gets involved? (Warning: this gets even more gross and disturbing.) For a possible answer, get ahold of Andrew Kimbrell's *Human Body Shop* (Harper San Francisco, 1993) and read it carefully. Kimbrell cites a "growing effort to further widen the legal definition of brain death" to the loss of higher brain function (so-called *neocortical death*). Kimbrell warns they'll try next to expand the criterion of death to encompass anencephalic newborns, the irreversibly comatose adult, the Alzheimer's patient, and who knows what else.

The book describes a bizarre scenario right out of *Coma* and *Soylent Green*: harvesting the dead, using *neomorts* (the Living Dead kept artificially breathing for years) as "whole-body storage systems for scarce organs and blood supply, and as research tools to test new drugs and experimental medical procedures." Believe it or not, there actually are doctors right now pushing this wacky idea. It could be the military-medical-pharmaceutical industrial-complex party line tomorrow. (The American Cryonics Society announced in 1988 that it would require members electing head-only neurosuspension to donate the rest of their remains to unspecified "scientific use"—a situation fairly oozing with abuse potential.)

Let's face it: cryonics won't go anywhere without massive research bucks. Who's kidding who? This money will come from multinational corporations with the resources to fund research in cryopreservation, nanotechnology, devitrification (unfreezing), and even genetic engineering of human clones.

And why should they do that? There are huge potential profits to be made from proprietary organ and tissue banks with unlimited shelf life, for one. Xeroxed cows, patented body parts for manufacturing drugs, that sort of thing. Flesh trading around the world is already a thriving biz. "In India the going rate for a kidney from a live donor is \$1,500; for a cornea, \$4,000; for a patch of skin, \$50," says Kimbrell. "The Montes de Oca Mental Health Institute, near Buenos Aires, was removing and selling the organs of its patients..." after killing them and reporting that they had escaped or died, he adds. There are obscene profits to be made in the spare organs biz—profits that could sustain large-scale R&D.

Some questions: Will the Faustian price we pay for immortality be the commodification of the body and the loss of the sanctity of human life on the planet? Will suspenders end up in a bizarre future world that considers them mere vermin that might contaminate genetically-engineered purity? Or "Ishi" to a superior civilization they can never even approach or understand? One that makes them eternal slaves, Morlocks to the Eloi, you might say. An *Übermensch*, which automatically connotes that you, sir, are the *Untermensch*? Not a pretty fate. **M-E**

*Internet resources on cryonics:* sci.cryonics, sci.life-extension, sci.nanotech  
*CryoNet mailing list:* send e-mail to majordomo@cryonet.org with the message "subscribe cryonet"

*FAQ:* send e-mail to archive@cryonet.org with "0000" in subject line

*web sites:* <http://www.c2.org/~kqb/cryonet.html>

<ftp://ftp.parc.xerox.com/pub/merkle/cryo.html>

<http://sunsite.unc.edu/jstrout/uploading/MUHomePage.html>

[http://oceania.org/world\\_health/](http://oceania.org/world_health/)

## THE CHATSWORTH SCANDAL

*The history of cryonics is full of weird stories. Here's one that turns up in their own promotional literature. Astoundingly enough, diehard hopefuls keep signing up. Read on for a modern day tale from the crypt. —WT*

**I**N 1967, CRYONICS SOCIETY OF CALIFORNIA PRESIDENT ROBERT NELSON LED A TEAM WHICH CRYOPRESERVED JAMES BEDFORD, THE FIRST MAN EVER TO BE FROZEN IN THE HOPE OF RENEWED LIFE. NELSON WAS A TV REPAIRMAN WHO NEVERTHELESS PRESENTED HIMSELF AS A VISIONARY LEADING A MOVEMENT WHICH WOULD MAKE ITS MARK ON HUMAN HISTORY. HIS ORGANIZATION WAS CHRONICALLY SHORT OF MONEY, EVEN WHILE NELSON CIRCULATED PLANS FOR HUGE "CRYOTORIUMS" WHICH HE HOPED WOULD HOUSE THOUSANDS OF CRYONICS PATIENTS. THE GAP BETWEEN HIS GRAND DREAMS AND REALITY WOULD ULTIMATELY PROVE FATAL—TO NELSON AND TO HIS PATIENTS.

NELSON AND VARIOUS HELPERS FROZE HALF-A-DOZEN PEOPLE OVER THE NEXT FEW YEARS, AND HE SET UP ANOTHER COMPANY, CRYONICS INTERMENT, INC., TO MONITOR AND MAINTAIN HIS PATIENTS IN THE LONG TERM. SOME WERE "CHARITY CASES," WHILE OTHERS WERE FINANCED BY RELATIVES WHO AGREED TO PAY STORAGE COSTS ON AN INDEFINITE BASIS. ALMOST UNANIMOUSLY, THE RELATIVES DEFAULTED ON THEIR COMMITMENTS. AS A RESULT, NELSON LACKED CASH FLOW TO PAY FOR THE CONTINUING MAINTENANCE OF HIS PATIENTS. INEXCUSABLY (NELSON CLAIMS IT WAS AN ACCIDENT), DELIVERIES OF LIQUID NITROGEN WERE ALLOWED TO LAPSE, AND THE PATIENTS THAWED IN THEIR TANKS.

IT WASN'T UNTIL 1978 THAT THE SCANDAL BECAME PUBLIC. AN ATTORNEY FOR RELATIVES OF ONE OF THE PATIENTS LED JOURNALISTS TO THE OAKWOOD MEMORIAL PARK IN CHATSWORTH, CALIFORNIA, WHERE THEY OPENED AN UNDERGROUND VAULT OWNED BY CSC AND SAW FOR THEMSELVES THAT THE PATIENTS HAD NOT BEEN MAINTAINED. (FORTUNATELY, THE FIRST FROZEN MAN, JAMES BEDFORD, HAD BEEN MOVED ELSEWHERE AND IS STILL FROZEN TODAY.) A LAW SUIT FOLLOWED, AND THE SAME RELATIVES WHO HAD FAILED TO MAKE MAINTENANCE PAYMENTS ACCUSED ROBERT NELSON OF CAUSING THEM SEVERE MENTAL SUFFERING. NELSON, AND THE MORTICIAN WHO HAD ASSISTED HIM, WERE ASSESSED SUBSTANTIAL DAMAGES.

STILL, THE IMPACT OF THE CHATSWORTH SCANDAL WAS SUFFICIENT TO TARNISH THE IMAGE OF CRYONICS. AS A RESULT, THE LATE 1970'S WERE A MORIBUND PERIOD IN WHICH LITTLE GROWTH OCCURRED.

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*Lippy & Brite*

*in the*

**CHARNELHOUSE**

*of*

*Karma*



*by Tiffany Lee Brown*

*Photography by J.K. Potter*





## *Interview with the Novelist*

MONDO 2000 sent its intrepid field correspondents to track down the alluring Poppy Z. Brite in New Orleans. In this episode Magdalen, Keeper of the Sacred Tape Recorder, blackmails FringeWare Inc.'s resident boy genius Paco Xander Nathan into driving the black German sedan—the one with tinted windows—through dusky Southern corridors to the home of gris-gris, flash floods, and American vampyre lore. Hacktor Wiley Wiggins—on the lam from the law and a posse of pedophilic phreaks—sneaks into their hotel room in Crowley, Louisiana and demands an audience with the Goddess of Horror. After narrowly escaping a cabal of bubbas at the local Waffle Haus, they arrive at Ms. Brite's candlelit flat in the French Quarter.







PZB: Do we wanna do this straight? Does anyone want a bonghit? That might enhance the quality of the conversation.

MAG: *Maybe I could just have one...*

WW: Yeah!

PXN: Just a wee bit...

PZB: [searching room] I need one of those bells for my stash box like those keychains where you clap your hands and they beep at you... Is that thing still rolling? Anybody got a lighter?

WW: *We've got matches from the Crowley Inn.* [burbling sounds]

PZB: I don't wanna be too fucked up for this, just fucked up enough... See, this is my coffee table art. [shows a mounted picture of a bloodied corpse on the asphalt with a smear of mottled, bloody flesh in the foreground]

WW: Ow, I hate it when that happens.

PXN: [peering at photo] What is that? Brains?

PZB: I think that's blood with a reflection in it, but it could be brain fluid or something.

WW: [pointing at the smear] So what's this slab of meat about eight feet away from him?

PZB: I think that's his face. He probably came through a windshield, and like his face broke off and slid out to there. [takes white brick from the coffee table] This is a brick from Jeffrey Dahmer's apartment building. My friends just happened to be in Milwaukee for a Con when they were tearing the building down. It's my favorite gift ever.

### *Recurring Nightmares*

MAG: I understand that the new book [*Exquisite Corpse*] is less horror-based than the first two novels.

PZB: It's very horrible, it just doesn't have a supernatural element. It's a serial killer story tentatively scheduled for hardcover publication by Delacorte. There are four major characters, two of whom are serial killers, at least two of whom are HIV positive, all of whom are psychotic to some degree, who have aliases, and none of whom are entirely sympathetic. So I figure this one will rocket me to the top of the *New York Times* bestseller list.

My publisher's been in a hurry, so I've tried to give them a book a year. I can't keep up that pace! After I finish the novel, I've earned some serious fucking-around time. I'm going to do a lot of traveling... I've just gotta go out and get into some trouble.

MAG: Some of the same characters keep popping up in your books, some of the same motifs. Are you extending any of those into *Exquisite Corpse*?

PZB: The continuing characters will definitely not pop up; and it's hard for me to think about things like motifs and themes while I'm actually working on something. I guess there's an AIDS thread running through the three books, which wasn't dealt with at all in *Lost Souls*. One reviewer complained that as a vampyre story it should've dealt with AIDS, which I thought was kinda strange. I didn't see the vampyres in the story as being affected strongly by disease of any sort. There's a scene where they drink cancer-infected blood and they only get a stomachache, so if they drank AIDS blood maybe they'd get a version of the vampyre clap or something. There's an undercurrent of AIDS in *Drawing Blood* and it's a major theme in the new book.

MAG: There's a hacker character called Zach in *Drawing Blood*. How much did your personal experience inform how you wrote that character?

PZB: I knew about Zach's character before I knew he was a hacker. I didn't know much about his background or how he made his living. I had been reading some things about computer hackers, and I realized that this would be a good thing for him to do. I knew he was an iconoclast, I knew he liked to fuck shit up, and I just did the research from there. My two main research angels were Bruce Sterling and Darren McKeeman, who's an ex-hacker. Both of them I could call at almost any time of the day or night. I remember calling Bruce at some point to ask him what color secret service agents' vans were. You like to get these things right.

MAG: You use a lot of strange communication media between your characters. Zach uses the Net, and he uses strange codes in local newspapers to communicate with his friends. But there's also a lot of psychic stuff going on.

WW: And isn't pirate radio part of the new book?

PZB: Pirate radio is an important part of the story. The character with full-blown AIDS has a pirate radio show. His on-air name is Lush Rimbaud. As far as obscure means of communication go, psychic and paranormal phenomena are things that I've always been very interested in.

MAG: You spend time online yourself, right?

PZB: I have an account on the WELL. It's very expensive for me so I'm not spending as much time online as I'd like to. New Orleans is not at the forefront of the cyber revolution, let's just say.

PXN: I was kind of curious, you said you were talking to Sterling. He's been making noises about how SF has come to a kind of dead end and he wants to go into horror. Are you converting him?

PZB: That would be cool. I don't really like hard science fiction very much. Cyberpunk characters are a little more recognizable to me. Actually, there was going to be a hacker element to *Exquisite Corpse*, but it seems to have died off... It actually came from reading about Jeffrey Dahmer and his homemade zombies. I got interested in the parallels between that and brainjacking and home-brew neural interfacing.

MAG: Speaking of hacking... Your style and subject matter are so visceral, physical, and sensual, yet in the process of creating them you're sitting there in front of the computer all day. Do you ever feel a little unbalanced between the two?

PZB: The sort of trance that you lull yourself into when you're writing is like tripping or being really sick—it's hard to remember exactly what it was like when you're not there. Or even extreme pain. [laughs] The parallels between extreme pain and writing, I could talk about that for days.

You know, I really started as a professional writer in 1991—that's when I hooked up with my agent. He basically gave me enough money to live on so I didn't have to be a stripper anymore. Stripping was very interesting but I didn't get much writing done. It's just very hard to live in both of those worlds. It creates a dichotomy in the way you see yourself.

WW: Writers as a lot have a horrible, debilitating disease. You chain-smoke, stay in your room, don't go out, don't talk to anyone else...

PZB: Well, novel writing is not a healthy state of mind, I assure you. You get pulled into the character's world and it usually doesn't let go of you until it's good and ready to. The characters ride me and I get into states of mind where I'm lucky if they'll let me escape to the kitchen to get some peanut butter and triscuits. Sometimes if I'm writing really late at night all the capital letters on the screen turn around backwards.



*Dittos*

PXN: Predation's a big theme with you. It seems like your characters would be using the Net and radio to prey on people.

PZB: I think when my characters prey on anyone, they do it pretty directly. They go out and get someone in a bar and bring him home, dismember him, and fuck him—not necessarily in that order. I'm really interested in subcultures of *all* types; that's one of the things that first interested me about writing about the gothic subculture, about hackers, and about serial killers, who create little countercultures of one.

That's what's most interesting to me about serial killers. They totally disregard society's taboos but they make these very rigid, strict taboo systems of their own. They tend to have very definite patterns. They don't necessarily do things in the same way each time, but they do them for the same set of reasons.

According to himself, Jeffrey Dahmer was not a consciously murderous soul, he just wanted someone to stay with him. He became fixated on this idea of keeping someone around, and he

MAG: Do your characters present themselves to you through your fingertips while you're writing, or in your dreams?

PZB: Well, yeah, some of my characters are continuing. I've written about Steve and Ghost of *Lost Souls*. I've had a couple of short stories about them before I wrote the book and they'll probably turn up in another book at some point, and then there are the other guys... In *Missing Mile*, the guy who owns the record store and who runs the club.

Even the characters who turn up for the course of one book, they tend to keep in touch after the book is over if they make it through. I don't know if you want to do a spoiler about the end of *Drawing Blood*, how they end up in Jamaica and this beautiful happy ending, but they only stayed in Jamaica for about eight months. They're living in Amsterdam now. See, I *know* these things, and this means that I'm going to have to go to Amsterdam so that I can write about their next story.

WW: It's hard to exorcise someone from your gaze once you've gone to all the trouble to create them.

## *The worst thing is to eat the brainstem of your own family*

went to such a degree with that, he was boiling their heads and calling their skulls his friends. He was so obsessed with creating a homemade zombie...

WW: He put weak acid in someone's forebrain to try and create a zombie...

PZB: He did that to several guys, and one he actually kept alive for two days.

WW: One managed to get out of the house and wander down the street...

PZB: Yeah, the Laotian guy...

WW: Cops brought him back, Dahmer's like, "Oh he's just a buddy of mine, never mind the bleeding wound in his forehead."

PZB: Really, he's 19, the kid was 13.

MAG: I was very intrigued that the main characters in both *Lost Souls* and *Drawing Blood* were male and in love. There was only one somewhat-developed female character in each book. I was curious as to why?

PZB: Since my first novel was published, I've pretty much had to come out. Since I was old enough to know what a gay man was, I've felt that I *was* one who happened to be born female this time around. It's frustrating sometimes. The male characters are just the ones that I've become the most fascinated with.

Most of my work is based on a foundation of eroticism, and I just don't get an erotic charge out of women. It's hard to be inside their heads and develop them as characters. Male-male sex is simply the kind that I find most erotic personally. Also one of the things that I like about writing cross-genre stuff is that horror fans pick up my work and they end up reading a hot, gay erotic scene which they'd probably never seek out on their own, but gee, you know they might like it.

MAG: Do you conceive of them as being real in any way?

PZB: They're as real to me as my friends and family. I'm able to communicate with them and hear from them. I don't have to be living in the same place. It actually makes me feel more lonely for the characters when they are supposed to be living in the same place that I am. It's a bitch that I can't just walk down the street and knock on their door. Even these serial killers, they'd hang out with me—I'm not their type anyways. I'd like to go visit with them but they'd have to provide the meat. You just can't get a good human haunch down at the A&P.

WW: Well, they say the inner haunch is the best cut...

PZB: Really?

WW: It's supposed to taste like sweet ham; all of the rest of the human body is supposed to be too tough and gristly.

PZB: That would make sense. Don't eat the brains though; it's bad for you. The worst thing is to eat the brainstem of your own family because it has the highest concentration of the stuff that will fuck you up.

WW: The trick is to tap their spine and get some of that pure spinal fluid—you'll trip for weeks.

### *A Counterculture of One*

MAG: In *Lost Souls*, you created gothic characters, a rural goth club, and a goth band. How involved have you been with the goth scene itself?

PZB: I was in a goth group of one, pretty much. When I was most into the music, habits and obsessions of it, I was living in Chapel Hill. Most of the goth crowd there at the time wouldn't have me. I wasn't cool enough for them. I was there visiting at the time because my dad lived here—I've visited a lot throughout the years—and I met







a lot of really cool goths when I was here in New Orleans in 1986, including the guy who introduced me to Chartreuse. Consequently, the coolest characters are based on New Orleans and the lame goths are mostly based on the people in Chapel Hill. Now that *Lost Souls* is out in paperback and widely distributed, I find myself having a lot of goth fans, and I like that.

**MAG: Once you get hooked on them, they're really hard to get rid of.**

PZB: I keep getting sucked back into the scene and I'll always be surprised—"Oh shit, I'm not done with this yet!" [laughs]

**MAG: A lot of goths have some kind of really fucked up religious background. How about you?**

PZB: No, not at all. My dad is from a Southern Baptist family, so he was totally anti-religion by the time that he got out of that, and my mom was never particularly religious. I've become a Subgenius-Kali-Hello Kitty worshiper. Although when Chris Li's [*her husband, sigh—eds.*] deal with the Immigration Bureau was about to go down, I went over to the Church of St. Jude, where St. Expedite lives. St. Expedite is a Catholic saint who exists only in New Orleans—arrived here in the 1800's from France. It was a crate containing a statue of a saint that came in on a ship. He didn't have a name on his pedestal and no one knew who he was. But the word "expedite" was stamped on the crate, so ever since then, he's been the local saint you pray to to expedite something. I could do a Mass every once in a while. I took Holy Communion at my dad's third wedding, and you weren't supposed to unless you'd been baptised, so I was very bad.

**MAG: Very bad. Hell in a hand-basket. And what would the Pope say if he saw all the Asian erotica you've got in your living room?**

PZB: What can I say, I like Asian boys. I don't know what to say about my attraction except that I know it somehow ties in with my fascination for serial killers, and I give Chris Li a whole lot of credit for not being too alarmed by this. [laughter] With this book, I hope to get the serial killers out of my system so that I can ever write about anything else. But I don't think I'm going to get those Asian boys out of my system anytime soon.

**MAG: Have you traveled over in Japan or China?**

PZB: No. We're planning a trip to Asia sometime in the next couple of years. The thing I know I'm definitely going to do is we're going to end up in Calcutta around Halloween one year for the Kali Puja. I'm not a goddess worshipper. I don't like any other goddess, but Kali just kind of reached out and grabbed me by the scruff of the neck and said, "Hi." And then she started turning up everywhere and appearing to me in books and images so she became one of my totem gods, along with Bob and Hello Kitty. [laughter]

**MAG: I don't know if you can speak about your introduction to something quite that dangerous.**

PZB: When I first walked into the Hello Kitty store in Chinatown in San Francisco, it was like coming home. I don't know what it is about Hello Kitty. There's a hacker named Lu3ke who sent me an e-mail message yesterday about how he'd always found Hello Kitty bizarrely erotic, her entire universe was this sex universe. She's almost Bob-like, with this big floating head. She has a body, but it's like a useless appendage. After he told me about his erotic fixation, I came up with the idea of the Hello Kitty blow-up love doll.

**WW: There's anything you can imagine in Hello Kitty. I mean, unspeakable sex toys, dental tools...**

PZB: You know how people get a gold star put in their front tooth? I want a Hello Kitty gold star.

**WW: Hello Kitty designer glass eyes... Hello Kitty dentist's chair with big straps.**

PZB: Yes, yes.

**PXN: I'm just curious. The whole hacker community—there's definitely an element of pedophilia going on there, trying to get hacker groups together—not to name any names, but certainly there's been a history of that. Did you get into that?**

PZB: Well, I feel kind of naive here.

**PXN: It just seems you fit in well with some of the situations they're developing.**

PZB: I'm not quite sure what you're referring to.

**PXN: Let's put it this way: it's a really good way of putting together a lot of young boys. [laughter]**

PZB: Do any of these names start with a "C"?

**PXN: Oh, there's a lot of names in that particular practice. I think it's more prevalent on the East Coast.**

PZB: I guess that would make me the old pedophile then. [laughter] I was recently doing another interview for a zine called *Subliminal Tattoos* and of course the subliminal tattoo is the tattoo you have that's invisible or flesh-colored so that people will get the message without knowing what it is, consciously, and they asked me what mine would be and I decided it would have to be "filthy rich rice queen" so that cute little Asian boys would fling themselves at my feet without knowing why. [laughter] That'll work, yeah. Now MONDO can print that and scoop the *Subliminal Tattoo* guy. **ME**

Love in Vein, a collection of erotic vampyre stories edited by Poppy Z. Brite, is available from HarperCollins.



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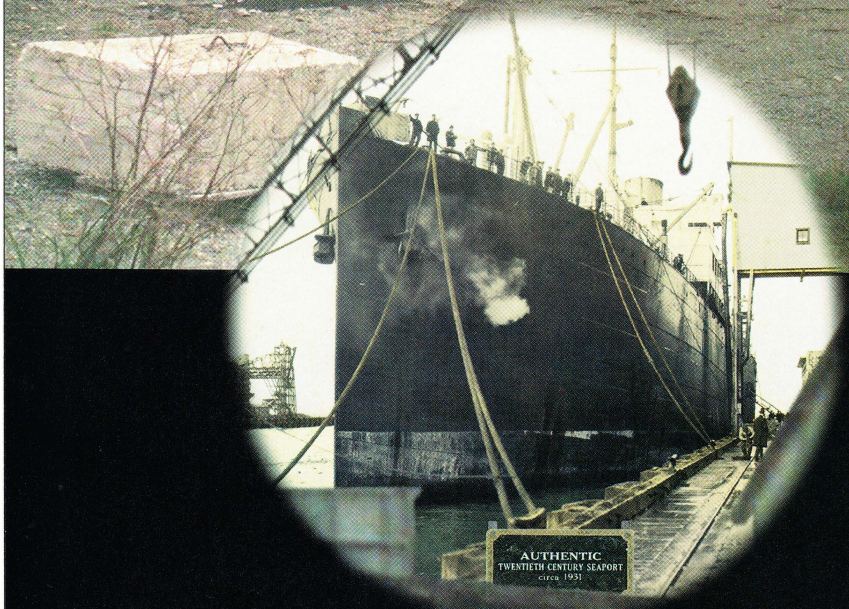
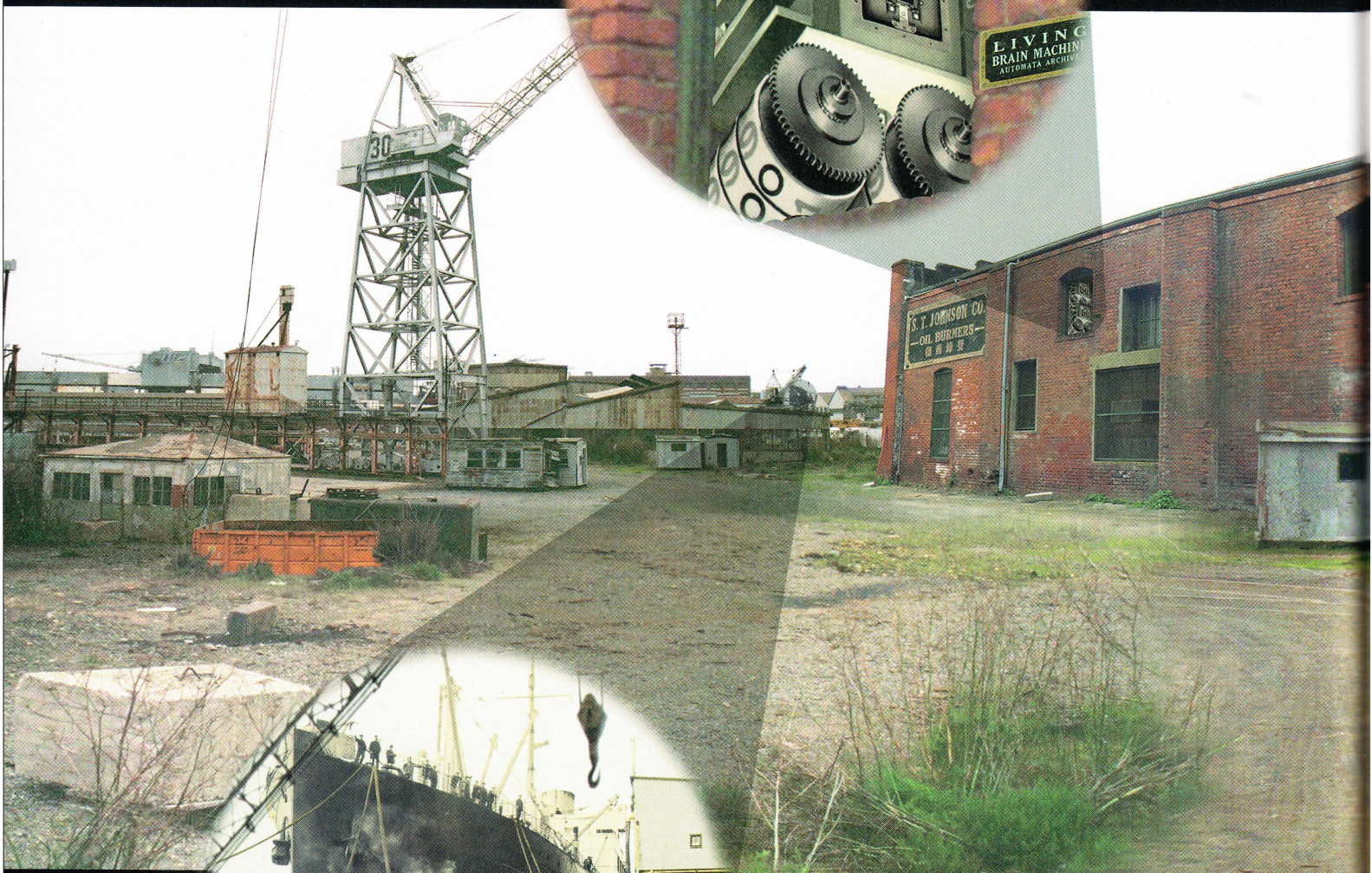
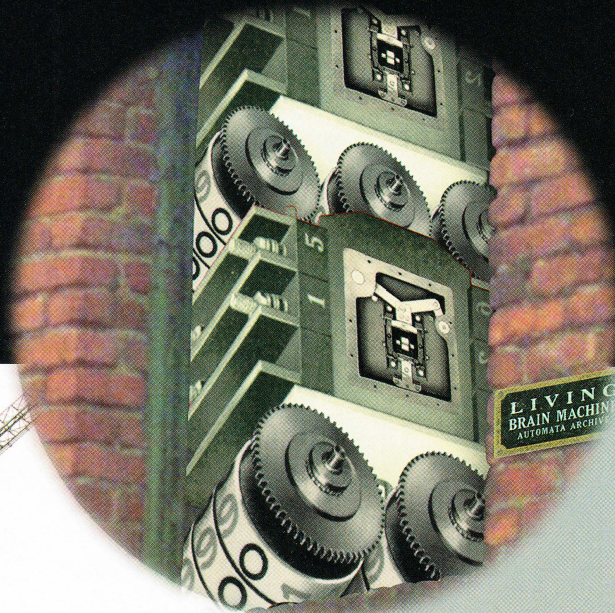
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# OPERATION RE-STORE





# WORLD

BY JORINDE SEIJDEL

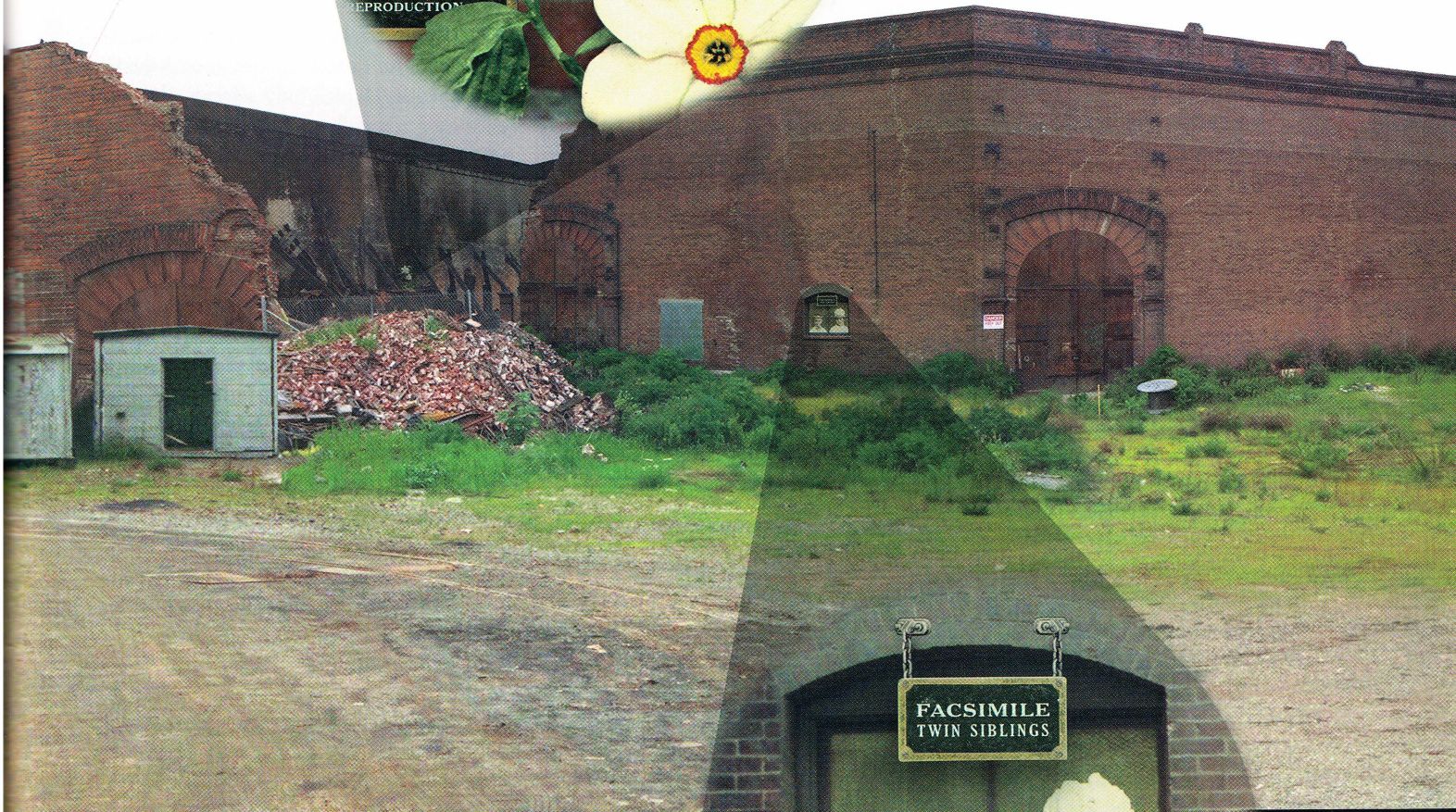


Illustration by **John Borruso**



As we all know, our planet is under constant surveillance by little green men from outer space. These little fellows are usually bored stiff by it all, but in the last few years they are seeing more and more to make them giggle. They see how in Australia an embryo, and somewhere else Glenn Gould records, are launched into space. With great hilarity, they see how a block of concrete with the "best books of all time" is sunk to the bottom of the Pacific. They see Leonardo da Vinci's *Last Supper* disappear into the face of the earth, followed by Jeff Koons' *Ushering in Banality*. They see how somewhere a "delegate" slips a box containing floppies and discs full of world data into a cranny in the cliffs. They see how "representative species and remarkable excrescences" are being entrenched into secret bunkers while an old woman with a dried-out cactus in her hand is sent away to the sound of scornful laughter. An Indian, an AIDS patient, and a mountain gorilla are resisting recruitment—to no avail, they are on The List.

Anticipating the future, all these insane scenarios are now being devised or implemented. If you are not careful, you will be involved as a supernumerary or undertaker of a terminal culture whose only remaining concern is the polishing, safeguarding, and cataloguing of its heritage. Convinced as it is of its universal importance, this culture shows its largesse by "preparing" itself as a heritage, and, as such, saving itself from destruction. Future generations or "visitors from outside" will be offered a fully comprehensive model patrimony, preferably on a scale of 1 to 1. The motto is: save as much as can be saved, not for ourselves, but for posterity. The hour and the moment of The Lists, of the inventories and maniacal enumerations, has arrived. They are churning out one "checklist" after another and who or whatsoever is on The List can kiss the world goodbye.

The little green men are splitting their sides with amusement. In France someone from the World Heritage Committee is bolting a World Heritage plaque and emblem to the Cave of Lascaux. Others are performing similarly inane activities at 409 other sites included in the World Heritage List. The World Heritage List is real: The World Heritage Committee, part of UNESCO, has been working on it since 1972, with the objective *to define the world-wide natural and cultural heritage and to draw up a list of sites and monuments considered to be of such exceptional interest and such universal value that their protection is the responsibility of all mankind.* [italics theirs—eds.]

Suddenly we are personally lumbered with the Pyramids of Egypt, the Grand Canyon, the Taj Mahal, Machu Pichu of the Incas. With Notre Dame, Aachen Cathedral, with the Vatican City, the town of Potosí in Bolivia, with the city center of Florence, the Chinese Wall and the Tyr in the Lebanon, with all the Baroque churches in the Philippines, and, of all things, with the Statue of Liberty in New York. It does not matter at all whether Amsterdam (including that ancient wall they have just unearthed), our birthplace, all the McDonalds, Sarajevo, and all of Belgium go to ruin. They are not on The List.



## The World Heritage's World

The World Heritage project is a perfect example of a form of conservation whereby Nations or government bodies appoint themselves as protectors and saviors of culture and nature, under the pretext of "urgent necessity." Save the world! They are always rubbing in 'our' wish for a heritage, with dubious supporting terms such as "loyalty," "guilt," and "glory." But the preparation of a heritage can also be construed as the testimonial staging of death: the organized fixation on the Legacy, which only after death can be revealed in its full splendor, is in reality an incitement for collective euthanasia.

The 123 countries which have endorsed the *Convention for the Protection of the World Cultural and Natural Heritage* can nominate sites and monuments. Subsequently, the Committee, which is made up of 21 specialists, decides whether the objects nominated can really be regarded as the "cultural and natural wonders" which are part of The World Heritage. Architectural monuments are eligible, and sculptures, paintings, cave paintings and, whether they are inhabited or not, historic regions or city centers and traditional villages; but moreover, contemporary architecture and natural monuments or sites which meet specific physical and biological criteria. Then there is The List of "the World Heritage in Danger" on which a site or monument can be placed if it is seriously endangered, for example, by natural decay or war. (You're dying, we can't help you, but perhaps your house is on The List.)

Traditionally, in a will, the testator can pass the most whimsical verdicts and make the most unrealistic demands. Thus we read in the Operational Guidelines that a monument nominated not only has to be materially authentic, but also must be *a unique artistic achievement, a masterpiece of the creative genius; have exerted great influence, over a span of time or within a cultural area of the world, on developments in architecture, monumental arts or town planning and landscaping; or bear a unique or at least exceptional testimony to a civilization which has disappeared.* "Natural properties" are of universal importance as



superlative natural phenomena, formations or features; for instance, outstanding examples of the most important ecosystems, areas of exceptional natural beauty or exceptional combinations of natural and cultural elements.

And so the World Heritage project proves to be an old-fashioned museum, with standards and criteria dating from the 19th century. In its "collection" there is only room for "authentic masterpieces," which in turn have to be as intact and complete as possible: for example, an "Ice Age" area would be expected to include the snow field, the glacier itself and examples of cutting patterns, deposition and colonization (striations, moraines, pioneer stages of plant succession, etc.). The Guidelines stipulate that monuments or sites which are too badly damaged will not be considered, that 'doubles' must be avoided, that a balance between cultural and natural heritage must be ensured. The List has no formal limit—as with a real museum, masterpieces can always be discovered and fitted seamlessly into the collection, which is as infinite as time. As in a real museum, the "objects" admitted to the collection are protected by an appropriate "buffer zone": *an area surrounding the property which has restrictions placed on its use to give an added layer of protection.*

The World Heritage objects are subsequently identified by the specially designed "World Heritage Emblem" placed in such a way that it does not visually impair the property in question. In order to inform and educate the public, they are setting up the production of plaques to commemorate the inclusion of properties in the World Heritage List. These plaques are designed to inform the visiting public that the site has a particular value which has been recognized by the international community. In other words, the site is exceptional, of interest not only to one nation, but also to the whole world. However, these plaques have an additional function which is to inform the general public about the World Heritage concept and the World Heritage List. (At last it becomes clear that "We the World" are ruling the world. There are no minorities, or they have no culture, they belong to "Us the World.")

Like a museum, the World Heritage wants to present itself as a coherent set-up, in which the "works" fit into the order of an evolutionary world history, whose moments of truth they reflect. The World Heritage wipes the floor with My World Heritage, with Your World Heritage, with Their World Heritage. But because of the way in which it emphasizes itself as a concept, it is both a nineteenth century project and a hypermodern one. *It's a World Heritage's world.*

## History as a Mickey Mouse Story

The World Heritage as a touristic fun route—it would have been a dream-come-true for Baedeker, the pioneer of the modern travel guide and inventor of the "star system" for the rating—is only one of the projects for the "museumization" of the world. Not only the past, but also the present and anticipating the future, are involved in the cultivation of a maximally intact and complete "exemplary" heritage. Care, preservation, and protection: things become monu-

ments, nature becomes reserve, knowledge becomes information and data, people and forms of life become models or examples. Issues are piling up, archives are jam-packed, data banks are multiplying. It is not only a matter of conservation and restoration of culture and nature, in the form of (open air) museums, zoos, wild-life preserves, reservations for tribes or races, protected nature reserves, monument care, organized commemoration of events or persons, etc.

Now technology and industry are eligible for monumentalization. The International Committee for the Conservation of the Industrial Heritage (TICCIH), set up in Sweden in 1978, promotes international collaboration in the field of conservation, research, documentation and presentation of "our industrial heritage." This includes the physical remains of the industrial past, such as landscapes, sites, structures, plants, equipment, products and other fixtures and fittings, as well as its documentation, consisting of both verbal and graphic material, and records of the memories and opinions of the men and women who have been involved. At the same time, everyday life is being documented and collected on a large scale, as an activity parallel to life. In Sweden, a national project, which started in the 1970's under the name of SAMDOK, was aimed at collecting and registering objects in everyday household use in a structural manner, simultaneous with their use, to leave posterity with a maximally accurate, differentiated and representative picture of life in Sweden.

We are running ahead of the future, things of today are being made "museum-ready" to keep the heritage "up to date," or being preserved for later, for example, in the form of in vitro conservation and gene banks. And then there are the astonishing projects which, staged on a grand scale, reconstruct and act out the present and/or the past. The eco-greenhouse Biosphere II, in Arizona, shows on a small scale what it was like when everything was still biologically "in order." When the End of Time comes, select groups of people will be allowed to survive in similar greenhouses on Mars. The recent dramas around Biosphere II illustrate unambiguously the fusion of science, fiction and entertainment: two former inmates threw open





the air locks of the Greenhouse to save the new, "second generation" inhabitants from potential suffocation. And the financier of Biosphere, billionaire Edward Bass (who is also the major stockholder of the Disneyland consortium!) ordered federal agents to occupy the premises, accusing the original management of financial and scientific mismanagement.

The planned theme park "Disney's America" will act out America's history in six episodes, one of which deals with the annihilation of the original population. (Opponents of this project claim that it will turn history into a Mickey Mouse story while advocates point to the jobs it would create. Imagine that jobless Indians might perhaps let themselves be annihilated once again...)

In the recently opened history park Archeon (*Live three billion years in one day!*) in Alphen-on-the-Rhine (The Netherlands), the world begins again with a big bang. The "inhabitants" (even the inhabitants are real) are constantly performing "authentic" activities from all periods. (A fun but dangerous game: imagine, if the locals in Amsterdam were forced to display "typically Amsterdam" behavior for the tourists, to hang around at pavement cafés or pretend to be squatters... But are they not doing that already?) In the World Heritage project as well as in all these crazy amusement parks, the pursuit or protection of authenticity culminates precisely in complete artificiality. These are worlds, hindsight-utopias, where everything can be forgotten in the whirl of the spectacle. But perhaps it is precisely there, and because of that, that people can be the unashamed children of their time.

### Conservation as a Political Strategy

The maniacal preservation, "rewinding" and reconstruction of history is pathetic and ridiculous as well as treacherous and disturbing. Pathetic and ridiculous because it is a futile enterprise which accomplishes exactly the opposite of what it aims for: everything declared to be "World Heritage" is being declared offside. Treacherous and disturbing because it might actually be the implementation of a political strategy, which stupefies us and carries us off into an amnesiac delirium, or some terrible tautological yawn.

The conservation project manages to present itself as rational, benevolent and "good," even as necessary. Everything and everyone is dragged into it as a matter of course. But what appears to be willingly could easily turn out to be unwillingly. Although it is presented to us as a natural and universal yearning, this obsessive preservation, restoration and reconstruction of

things, this museum treatment of the world, would seem specific to our time and specific to Western culture. There was a time when people only preserved what still had a direct and living connection with the present. Everything else could be forgotten or destroyed. It was a good way of tidying up and explains partly why in bygone days people dealt so carelessly with precious monumental matter—and still do, in other cultures or what is left of them. They never deliberately "made" history (or the

future), but if the present so required, they had no qualms about demolishing things or "recycling" them and using them for other purposes.

What began as collecting and exhibiting material references of identification for a new bourgeois society in search of a documented past, has degenerated into an obsessive tendency to accumulate and dig up anything and everything. Archival consciousness run amok.

The refusal to destroy (or to let others destroy) is typical of our time and is an attempt to compensate for the unrelenting machine of destruction which drives the philosophy of progress. At the same time, this philosophy produces the "past" it needs to present itself as "evolved," as Progress. In that sense, conservation is a political strategy designed for the management and monitoring of the present and the preparation of the future. In this respect, it is one of the great 20th century industrial activities and, as with production and information, it is subjected to overload, hypertrophy, accumulation and excess.

### Stand-In

With information brokers such as the CIA, or with other large concerns, this surveillance and monitoring function of storage is crystal-clear. The CIA make daily satellite photos of the world, and, in their *World Book of Facts*, they meticulously keep track of the situation and current events in every country in the world. Rumor has it that they also collect all kinds of literary scenarios and plots, just to be prepared for anything. A pot-boiler may disguise suppressed information as fiction. A thriller might become "real" some day. Multinationals, in turn, often gather as much data on other companies as they can, also to prevent any "surprises."

With the mushrooming development of the electronic memory, the scope of storage is expanding indefinitely. Data banks are being created for every imaginable aspect of life, and age-old, dusty archives are being transferred to the most modern information systems. The *Archivo General de las Indias* in Seville harbors hundreds of thousands of historical sources, in the form of decrees, instructions, letters, regulations, case records, maps, petitions from Indian chiefs, etc.,



illustrations by Tom Pitts



which refer to the historical ties between Spain and its former colonies in Latin America. The whole archive is now being digitized. The manuscripts are being recorded on interactive optical video disc, not only to protect the original collection (*to preserve the past for posterity*—the present is once again discarded), but also to increase their accessibility for the researcher. The documents, discolored by time, can be “cleansed” on the screen via the computer (stains can be removed, creases smoothed out, colors changed, letters enlarged or reduced, etc.).

In a way, a “contaminated” and guilt-laden episode of history is being relieved of its blood, sweat and tears, and being given a false air of innocence. In the unbearable lightness of the realm of data, things are being relieved of their stoutness and weightiness: as “bits” and “bytes” they all look the same. It is not about whether the originals speak the truth, but about their disappearance into a retouchable “image”: the act of copying makes the originals artificial too. At the same time, the “real thing,” having become inaccessible, is entrenched in secrecy for fear that it will be touched by life. Culture loses itself in its “stand-in” version. It is like the copy that has been made of the Cave of Lascaux to protect the original and, in the center of Florence, age-old sculptures being replaced by exact replicas. (Is it live or is it Memorex?) Increasingly we will be kept in the dark about the authenticity of things.

The World Heritage, too, has sealed its own fate of disappearance by evaporating into the digital universe. One of the projects of World Heritage is Patrimoine 2001, or Heritage 2001. *This project has the objective of an image bank of all of the heritage of mankind*, UNESCO Director-General Federico Mayor told the launching ceremony. Commissioned by UNESCO, photographers take photos of The World Heritage. The photographs as well as old footage are subsequently digitized and stored on CD-ROMs, which in turn can be manipulated via the computer. *This visual information will unite aesthetic gesture with the force of documentary, or, Imagination and Reality. Sites and monuments, native populations, immense natural reserves and parks, extraordinary animals: researchers and scientists are working to safeguard these endangered treasures.* The monuments, etc., have of course mainly been “photo models” for many years now. But after Heritage 2001 they might as well be blown up. *They are data, so they exist.* That will suffice for the data tourists of the 21st century. One more step into the era of technological reproducibility: things do not lose their aura, but the auras lose their things.

The Ancient Greeks used to practice a form of memory art whereby they stored everything they wanted to remember in an individually defined mental complex of places and images. For example,

they memorized an imaginary building, including rooms, niches, columns, corridors, etc., and then furnished it with their own chosen eloquent images reflecting the facts, texts or thoughts they found worth remembering. Within their memory buildings, whose structure they knew through and through, they opened a specific “reminder” room, where the image stored evoked the knowledge desired.

Never will we be able to fathom the secret of this fantastic “artificial memory” to the full. Not only because it is too far removed from our way of thinking, but also because it is foreign to our nature. Having been extrapolated to a collective level, our “artificial memory” has been delegated to the outside world and has become fundamentally different in nature: it is perhaps most like an uncontrolled growth of images without places, or the other way around with the same implication, like an empty building, a labyrinth of blind spots. Perhaps our late 20th-century memory is not designed to remember, but rather *to forget*.

How ironic this sounds in an era which is totally committed to the preservation and storage of anything and everything, for Future Child and for Posterity. But witness World Heritage, nothing can be saved. This delirious anticipation and retrospection of matters and time has already foundered in a fatal paradox. The Future is Now and We are Posterity, or Visitors from Outside, tourists in a “museumized” universe. Only for those who do not recognize it will this be catastrophic. They will be buried alive alongside The World Heritage, as it was once customary to bury the dead together with their belongings. The “survivors,” the next of kin, look bemused, bewildered, amused or bored, with the eye of a tourist or a newcomer, at all that frozen matter, at all that silly fuss, at all that uninformative data. They need not remember any of it (because they never knew anything about it). Noah’s Ark has sunk. Meanwhile, we can behave as the public, as extras, or can re-invent everything again...

And the little green men? They almost died of laughter when they saw how the embryo was split in two by Glenn Gould... **ME**

*All italicized quotations from the World Heritage files. UNESCO World Heritage and TICCIH files can be found on the Internet from the Digital City (menu Central Station). Choose ICOMOS under International Organizations. The comprehensive List and Operational Guidelines can be found there. Translation by Marion Olivier / Gay Wylie. Originally published in Dutch and English in Mediamatic 8 # 1. Mediamatic is online at <http://mmol.mediamatic.nl>. Subscriptions: Mediamatic, Int. Antwoordnummer, CCRI Number 11084, 1000PB Amsterdam, The Netherlands.*





# THE LAST DAZE



Photos by Tom Pitts





The cyborg would not recognize the Garden of Eden — Donna Haraway



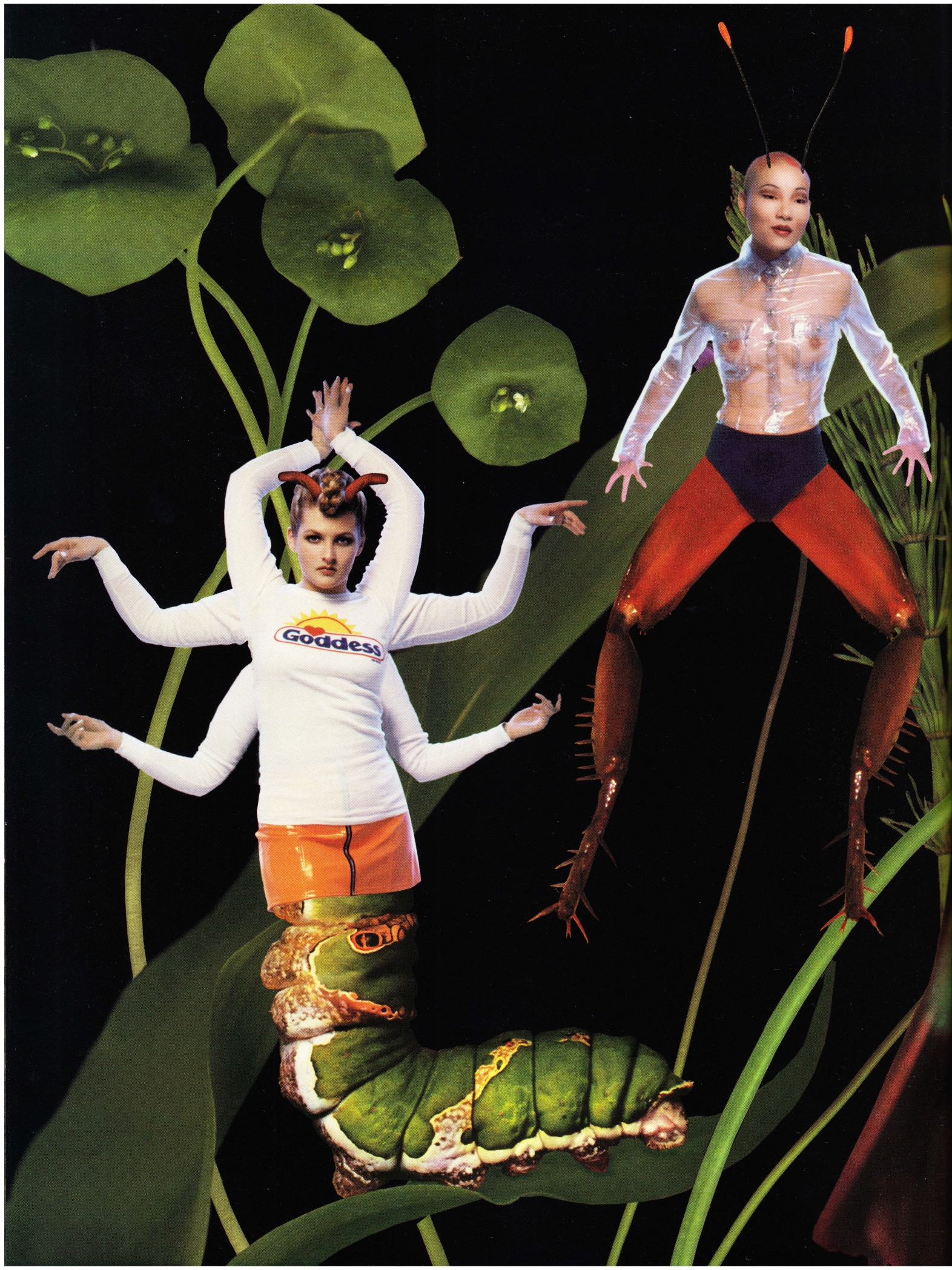




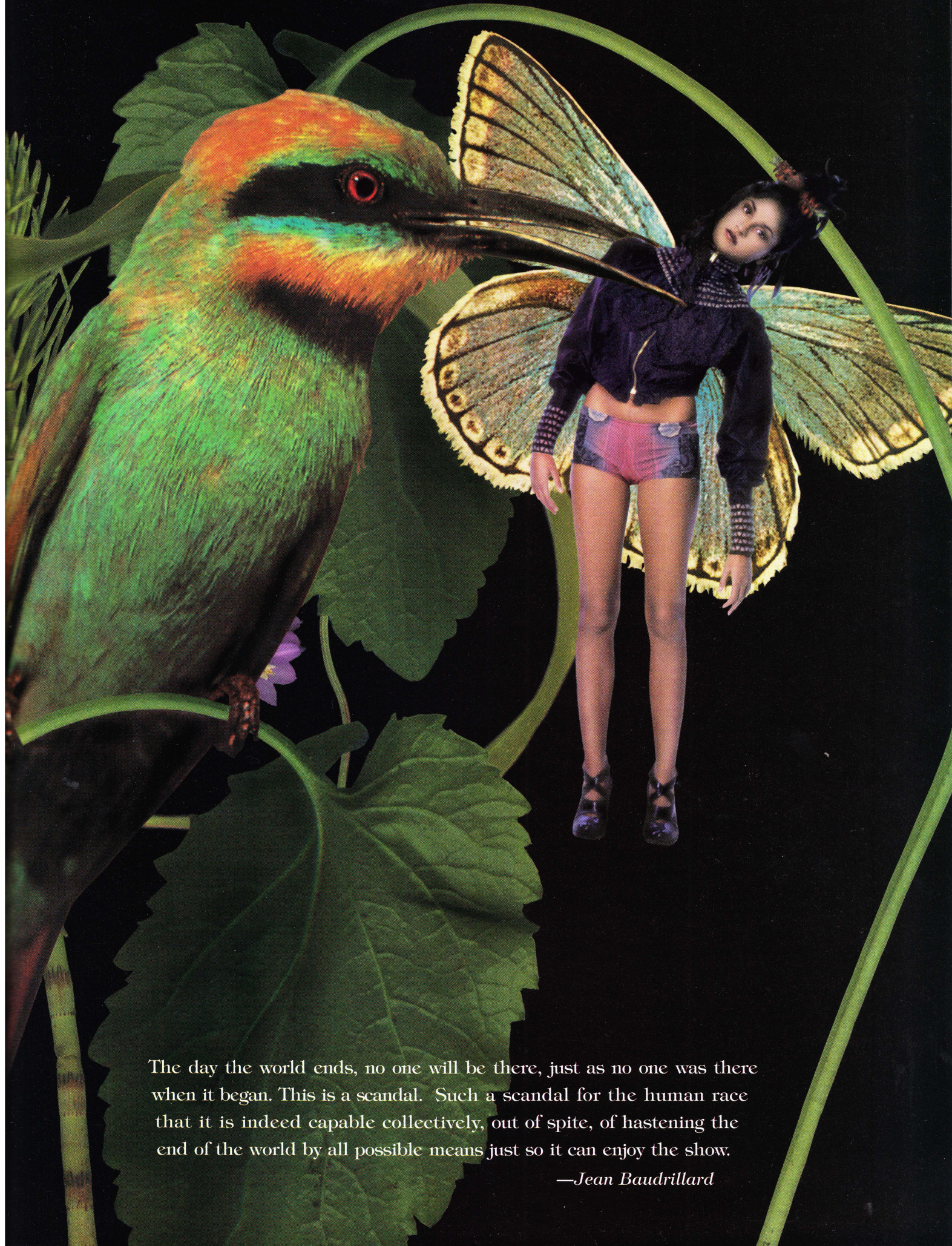
We're closing our borders but opening our hearts — Al Gore on C-span











The day the world ends, no one will be there, just as no one was there when it began. This is a scandal. Such a scandal for the human race that it is indeed capable collectively, out of spite, of hastening the end of the world by all possible means just so it can enjoy the show.

—Jean Baudrillard





ILLUSTRATIONS BY MONTE MCCARTER



# THE MUSE OF THE ODD

IF  
YOU  
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BRUCE

STERLING  
NEEDS

AN

INTRO...

YOU'RE

READING

THE

WRONG

TIME



# BRUCE STERLING TALKS TO TOM MCINTYRE ABOUT THE FOUL AND THE FAIR

**M2:** You were saying, "Science fiction writing has to be convulsive..."

**BS:** Or not at all! *[laughs]* I don't think it's much like other kinds of fiction. In fact, I'm not even sure it *is* fiction. I think it's some other type of pop-cultural emanation. In reality, 90 percent of science fiction is the functional equivalent of nurse novels or women's romances or westerns. It's just another genre by which ink is distributed on paper and sold at a higher price than blank books! *[laughs]*

But the heart and soul of it, the sort of green wood there, is the element that is convulsive and transgressive and wondrous as opposed to dime-store glitter; writing that's genuinely transcendent as opposed to New Age malarkey; genuinely weird as opposed to merely peculiar; genuinely imaginative as opposed to simply glib.

**M2:** Let's talk about the new novel, *Heavy Weather*. How did you become interested in people who track killer tornadoes?

"It's about this strange business with the F-6," said Leo as his printer emitted a well-bred hum. "I wonder if you could explain that to me a little more thoroughly."

"Well," Jane said, "the F-6 is a theory Jerry has."

"It sounds a bit alarming, doesn't it? A tornado an order of magnitude larger than any seen before?"

"Well, strictly speaking it wouldn't be a tornado per se—more of a large-scale

vortex. Something smaller than a hurricane, but with a different origin and different structure. Different behavior."

"Was I right in hearing that this thing is supposed to be a permanent feature of the atmosphere?"

—p.158  
Heavy  
Weather

**BS:** I wanted to write a story about a possible greenhouse-effect future. I was just interested in the genre of the disaster novel—it's a standard trope really. And I wanted to write a contemporary version, kind of rethink it, revivify it, put my own spin on it. So I have a big thick clipping file of stuff on the greenhouse effect. It's surprising really how little of it finally showed up in the book.

**M2:** It became more of a character study in a lot of ways.

**BS:** Well, I suppose it did in a way, but the characters are so deliberately picked that you can't really study their makeup without studying the problems. It's a way to integrate character into the novel of ideas, to sort of incarnate the ideas within the characters.

**M2:** Like Alex. For most of his life he's been an invalid because of a birth defect resulting from his mother's exposure to some noxious chemical.

**BS:** He just has a series of interests that sort of illuminate the underside of that world. He's sick, he's wealthy, he has a lot of contacts in the black market, and he's willful and reckless... and for good reasons: so little to offer. He's a fairly vividly defined character—almost everything he does says something about the nature of his society.

**M2:** What about his sister Juanita?

**BS:** In the standard SF trope, the hero would have been Mulcahey, a larger-than-life charismatic genius superhero competent man. Sort of a classic Heinlein protagonist, he's bigger than everyone, stronger than everyone, smarter than everyone, knows things other people don't know. He's the absolute stud duck. He's got these other characters who are his funny-hat hangers-on, and so forth.

So to be perfectly perverse, I wanted to write a novel from the point of view of this guy's girlfriend. Because you know, no guy is a hero to his wife. I mean, everybody I've ever met who is brilliantly gifted intellectually always has some sort of cavernous emotional need. *[laughs]* You just can't be all of those things at once. It's like: Honest. Smart. Effective. Choose any two. *[laughs]* So I was enjoying painting the underside of that phenomenon. If you actually study what happens in Mulcahey's life, although he's idolized by his followers, it's pretty clear that he doesn't have much in the way of will. He just does what other people expect of him. He spends most of his time in a state of complete sociopathic abstraction. He really has a hard time relating because he's just so much smarter. He's a nerd. Somewhere under there is a shy, wounded geek.



**M2:** At the end he retires from this adventurous lifestyle to marry his pregnant girlfriend. And they settle into this very predictable, mundane situation where neither seems particularly happy.

BS: I think that's an interesting psychological situation where you've witnessed something really huge and horrific. It's sort of like marrying the guy who was the hero at D-Day, but now he's selling cars or real estate. I think people like that do cling to one another with a peculiar ferocity because they both have been through this scarring thing. I mean, after the war, it's babies. Lots of them. You want to go back and shore up your counterfeit reality. You really do find a strange kind of peace and contentment by just attempting to be more like normal people.

#### WHEN THE WIND BLOWS, THE CRADLE WILL ROCK

**M2:** With all these environmental problems—horrific storms routinely tearing apart the countryside, a barely potable water supply—I was surprised that the world's population would still be increasing.

BS: Well, tornadoes don't really kill very many people. If they were ten times as bad and killed ten times as many people... More people than that are shot in the streets in Washington, D.C. every year. I think the population will continue to rise as long as people are not in control of their destiny. And my feeling about it is that the weather's already worse.

I don't think it's any coincidence that I'm in California on the *Heavy Weather* tour and 20 inches of rain were dumped on Texas in my absence. There are people in Houston where my brother lives who are clinging to the branches of trees and having people come out and rescue them in airboats. There are five or six counties in my home state

which are federal disaster areas right now. The bayous and the rivers are rising... I think "heavy weather" is already here.

**M2:** So can we avoid this ecologically devastated future? Do you think it's irreversible?

BS: Oh yeah. I think that whatever is going to happen with the weather over the next 30 years is probably pretty much set in stone already. What we're going to have to do for the rest of my lifetime is live with the consequences of horrifically bad decisions that were made in our grandparents' time. I'd like to think that you could go out and "Earth Day" the environment back into some wonderful shape, but I think there was an opportunity to do that which was pretty much muffed.

**M2:** When was that?

BS: Around 1970. The world population is much huger than it was in 1970. Consumption trends are pretty much up. The world just looks strangely different than it did. There are enormous forces which are beyond the reach of any kind of standard political activism. The idea that you can get together with your buddies and go out and hold a block signing is absurd. Not that I'm making a counsel of despair here. I'm not doing a James Watt thing here: "Well, if that's what it's like, let's burn up the National Forests." You need to come to some kind of terms with it.

And I think that what we ought to do is watch. We ought to pay a lot better attention than we do. We ought to try to understand what's happening to us whether we can do anything about it or not. And that's a peculiar kind of counsel, but it's what the

*Heavy Weather* people do. The whole storm troupe... they never do anything except monitor storms. They don't really rescue people, they're not first aid people, they don't preach. They just bear witness.

**M2:** That's something I was wondering. Why were they so interested in following tornadoes? Did you base them on real people today who follow weather systems?

BS: There are bits of it. There are people like the World Watch Institute, for instance, who just sort of compile things. There are journalists like William Vollmann, right? Now what the heck is William Vollmann doing in Yugoslavia? Is he going to end the war? When Vollmann goes to Yugoslavia do we really

think he's going to go over to Milosevic and say, "Look, I'm from San Francisco. I'm sort of a hip literary guy. Why don't you knock this off?"

Of course he's not. The expectation we have is that he's going to go over there and try and look at things with some kind of intensity and imaginative understanding and then come back and tell us what happened. He's going to bear witness. And I think there's a peculiar kind of virtue in that. It's not *engaged*, but I think that it's going to be a more common attitude for people to take. It beats muttering aloud to yourself in the laundromat, and it beats succumbing to despair.

And I can see this kind of zeitgeist growing. It reminds me of postmodern critique where you see a lot of the people who were part of the 60's drift into this position of "language theory" analysis where they're just making up more and more elaborate *recherché*

analyses to explain the hideous global triumph of the Reagan-Bush regime. They can't ever seem to find a foothold to actually dig in and resist it, so they just sort of analyze it with more and more exquisite techniques. And the worse things get, the more likely it is that intellectuals will adopt that kind of approach.

#### SPACE EVADERS

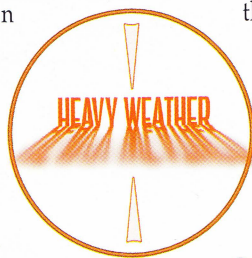
**M2:** In *Schismatrix*, the humans gradually mutated into a variety of distinct post-human species. Moving out into the unknown seemed to catalyze the evolutionary process. Do you still think that space exploration has an important role in humanity's future?

BS: I think it depends on what you mean by "humanity." By the time we start actually going out and messing around in the solar system *per se*, rockets won't be very advanced but their inhabitants are likely to be pretty damn strange. I'm just extrapolating from the arcs of development in, say, bioscience versus rocket science.

So if you ask, will mankind ever reach the stars... I can pretty well guarantee that they're not going to be walking around in miniskirts, saluting like Lieutenant Uhura. [laughter] If you actually looked at what it would take to survive in the orbit of Mercury, you probably would be better off redesigning some creature that feels quite cheerful about these circumstances.

**M2:** You mean like a salamander? [laughter]

BS: The approach I took in *Schismatrix* came from reading J.D. Bernal who once wrote back in the 1920's that the exploration of space was intimately connected with the change of the body. I think that his book, *The World, the Flesh and the Devil*, is an excellent book to read along that line.





But, to some extent, I believe it's a cop-out, and the aspect that's a cop-out is the absence of the Earth. I don't think that the Earth is likely to become uninhabitable. But I do think people are going to start doing extremely radical things to themselves. You can see that already, the tremors of it all through the body of society. Especially in a place like San Francisco.

**M2: You mean the complete body tattoos, heavy piercings, scarification...**

BS: They're demonstrating a willingness to mutate, a sort of political will towards body transcendence. It's just a question of the mood of the times... and the FDA. [laughs]

#### ZONE IRREGULATIONS

**M2: Are you familiar with Hakim Bey's essay TAZ?**

BS: [dread in his voice] Oh yes.

**M2: Do you think of the hacker/virtual reality worlds as being futuristic examples of these kinds of temporarily autonomous zones?**

BS: I think actually the place where you can find that is in finance and corporate activity because I think that the temporary autonomous zone is basically the hippy avatar of what's known as the virtual corporation in a different world. So I really think it's people in three-piece suits with lots of money who have a real opportunity to work things out along this line as opposed to Hakim Bey's favorite kind of people, who are sort of gay gnostics at raves...

**M2: Or nomadic individuals who are eluding the restrictions of society...**

BS: That's a very romantic vision. I think Peter's a funny guy, and he writes a really good prose. He's sort of a great classic bohemian outlaw character. And I think there's a certain amount of genuine insight in that essay of his. It's just that I think that it really plays into the hands of outlaw establishment

forces far more than it does into the hands of the counterculture. I think the people who have the most to hide... like the guys who are disposing of toxic waste, for instance. If you set up a temporary autonomous zone in which 40 guys get together and say, "Look. We've got 18 rusting barrels of potassium cyanide here. What are we going to do about it?" And somebody else says, "Well, my uncle's got a swamp," and they set up a shell organization, get it running, nobody's accountable, it accumulates out of nowhere, it disposes of the barrels of cyanide, all of the characters go off in their various directions and erase all possible traces of their activities. Now *that's* a temporary autonomous zone! It's a temporary autonomous zone which now becomes a *permanent* pollution zone.

But that's exactly what Peter is talking about in that essay. He's talking about a bunch of guys who come together, confuse

talk about a TAZ, talk about something like these weird right-wing mailing list PACs that accumulate out of nowhere, defeat candidates with a blitz of heavily financed negative propaganda, and then vanish before anybody figures out who they are or where they got all those addresses. That's a political TAZ, and the Right specializes in it. They're better organized in their untraceability.

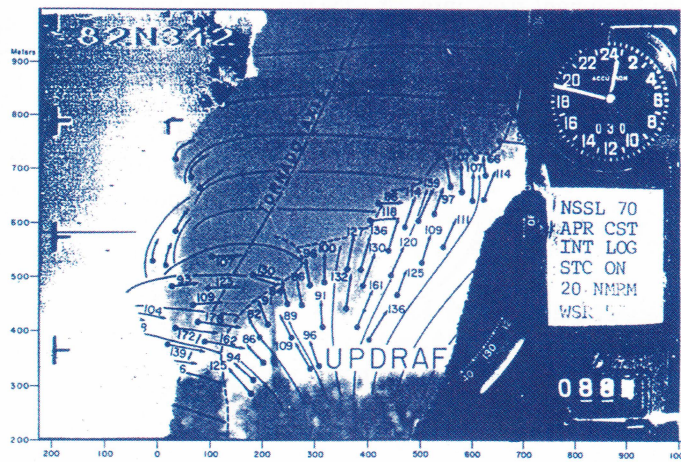
Hippies and bohemians are intellectually arrogant. They're very self-involved. They don't realize what they're doing. These techniques work *regardless* of the ideology of the participants, you see? They work as well for one side or the other. [warming to his theme] So when you begin to take the law into your own hands as people in the counterculture delight in doing, you have to realize that it's extremely easy to be hoist by your own petard. If you're indulging in revolutionary violence and the kind of righteousness that transcends the law,

then somewhere in a Munich beer cellar there's another guy who's going to use the exact same kind of rhetoric to seize power, and then the Revolution will eat its young... Yeah, I've read TAZ. Pretty good book. Recommend it highly! [laughter]

**M2: [changing the subject rapidly]** There's a line near the end of *Schismatrix* that says "denying death meant denying life." How does America's obsession with looking younger and living longer affect our ability to experience life more fully?

BS: Well, scarcely at all really. I mean, the American obsession is not really going to have an effect until the obsession is *workable*. What we've got now is stuff like retina and baldness cures, but stuff like actual rejuvenation of various tissues probably isn't that far behind. And I think people are going to start to nibble at it.

I think it's sort of romantic and silly to think that, boy we enjoy life so much more when we know death is here. Well, if that's so great why don't you go out and play a little Russian roulette? By my guest! I personally don't think I'd have any trouble living for 200 years. I wouldn't be bored for a minute. I've got a lot to do. Every day is an adventure. I'm having a grand old time. My main complaint is that I'm getting older... I wish I weren't. If there were another option I'd probably take it.



authority, set up an event which leaves a permanent mark in society, and then all scatter to the four winds before they can be indicted. And that's what people do at raves. But raves don't really matter. I don't care how hysterical the British police get about them. They're doing absurd fascist crap in Britain, setting up national registries of buses.

So basically, I'm very much in favor of the ravers, but go ask Greenpeace about a sea dumping rave.

**M2: A sea dumping rave?**

BS: Yeah—a bunch of guys get together with these horrible burnt-out freighters and load them up with chemical waste and go drop them in the North Sea somewhere when nobody's looking. It's the exact same modus operandi, and there's a lot more *money* in it for the guys who have more money. You want to



If there were some kind of "immortality dope" floating around, the Pope would be the first in line. I think if there were "smart drugs" around that actually made you smarter, America's chief executive officers would be first in line. The killer apps would be in business. Middle management would be taking it, the military would be taking it. That's how you're going to *know* it's actually working, in fact: when "smart drugs" aren't just something advertised in the back pages of MONDO. [laughs]

#### BIRTH OF EL NINO

**M2: Years ago you said "SF writers are usually people who are strongly shocked or misshapen in their formative years and have never recovered completely." What were *your* traumas?**

BS: Well, I lived in India for almost three years, and I don't know whether you can call that experience a shock or a trauma, but it was definitely a big change.

**M2: Were you reading a lot of SF at that time?**

BS: Yes I was, as it so happens. But I think that returning to the U.S. and realizing that basically I had nothing in common with most of my generational peers was what drove me that final step over the edge. Once you're placed in that position you can then "Woo the muse of the odd," as Lafcadio Hearn used to say, and I don't think I've become any more normal since then. I could pass for normal but if anything, the sort of experiences I've had and the sort of people are getting more peculiar with the years rather than less. I'm mixing with a set of friends these days who are *profoundly* odd... [laughs]

**M2: So how did it go with William Gibson when you wrote *The Difference Engine*?**

BS: Well, it went pretty well in that we're still friends, and I think that's a pretty good book. I was absurdly pleased with the end product. I just thought it was pretty swell. I mean, Gibson can sit and write about silverware or shoes and make it seem an intensely science fictional experience. He's a very accomplished prose writer but the whole structure of his obsessions and his use of metaphors, the way he compresses language... But a critical misconception we had was that if there were two guys working on it, the work would go twice as fast! [laughs] Of course, the precise opposite was true. When you have two guys working on it, it goes *half* as fast.

**M2: Was writing it sort of like playing badminton, where one of you would write something and then the other would edit it and add another section?**

BS: No, it went all sorts of different ways. Sometimes I would be down at the cliff base digging out coal, and he'd be sorting out lumps looking for fossils somewhere up the line. He'd be doing something I had no idea what he was up to and I was doing something else. And suddenly this package arrives with all this weird crap in it... It was a very peculiar enterprise. We were having these long, elaborate telephone discussions about word processing and appropriation and what it is that computers have done to the nature of prose composition.

The key discovery we made is that word processing is *not* about writing; it's about *rewriting*. It's not about composition; it's about appropriation. It's not about typing; it's about cut-and-paste. So all those virtues of word processing are enormously abetted when you have two authors rather than one, you see? Because now you're in a process of ongoing appropriation because one author's mind is appropriating the prose of the other author, and they can sort of meld one another's prose through word processing techniques.

It's especially handy if you begin cutting and pasting bits from other authors or other ideas. There are huge chunks of other people's dead Frankenstein flesh in *Difference Engine*. There's stuff from Wilkie Collins, Victorian "sensation" novels, period reportage, parliamentary reports, *The London Times*, slang dictionaries... all kinds of stuff were slung into the stew and melted down. It was sort of like grabbing the entire mindset of Victorian society, warping it, building eight legs onto it, then covering it with hide and sending it back on the street. It sort of smells and feels like Victorian society. You're walking around in this world of gaslights and computers, and what seems like just a peculiar conceit at the beginning, by the end of the book really is convincing.

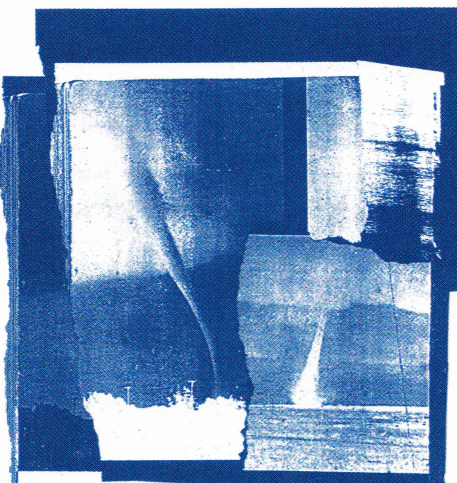
It has a peculiar authenticity in the way that a really good Max Ernst collage does. It's like *Une Semaine de Bonté*, that Max Ernst thing. He's gotten all of this late Victorian/Edwardian era lithography and has gone and cut and pasted bits and pieces. And some of them are a bit contrived; you can sort of see where the lines are. But in others, he's melted things together so effectively that they really do produce a surrealist shock. And they're far, far, far better art than the originals were, using this fairly low-key set of junky, penny dreadful stuff from the Victorian era to produce what's rather an effective piece of graphic art. It really does carry you into new head

spaces. That's sort of the high point of appropriation as a technique, I think. And I think that at times *The Difference Engine* does something similar on a prose level. And you could not have done it without computers, I would also point out. It's one of the most thoroughly word-processed texts ever written.

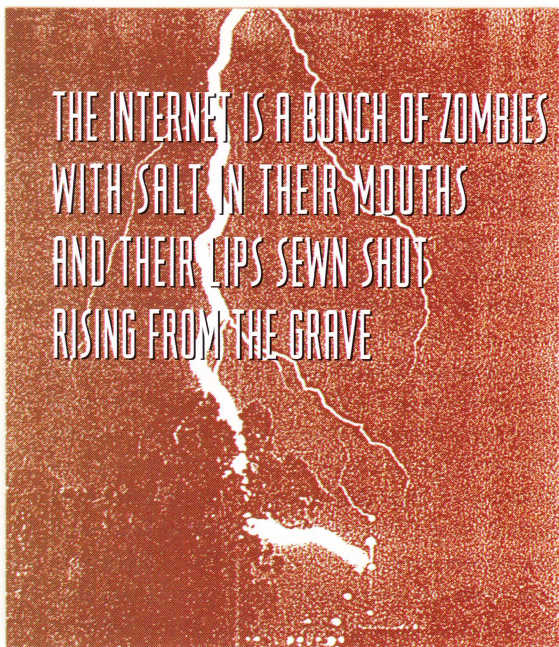
#### FROM FATWA TO SFWA

**M2: On the dust jacket of *Globalhead*, it says that you have been "a member of the Science Fiction and Fantasy Writers of America ever since Salman Rushdie was condemned by religious fanatics." Why did that event in particular trigger your decision to join?**

BS: Well, that's sort of an in-joke. SFWA is such a penny ante organization. It's really something of a laughingstock, but the majority of serious SF writers belong to it at one time or another just because it's sort of a "talking shop." Most of their activities are basically harmless. For years, the standard self-dramatizing gesture on the part of a SF writer was to publicly resign from the SFWA "in protest."







THE INTERNET IS A BUNCH OF ZOMBIES  
WITH SALT IN THEIR MOUTHS  
AND THEIR LIPS SEWN SHUT  
RISING FROM THE GRAVE

that I was joining the SFWA. But I'm still upset about Salman Rushdie. And, by heavens, I'm even upset about Naguib Mahfouz and Taslima Nasreen. I think both have got an extremely rough deal...

I take free expression seriously. I think groups like SFWA ought to campaign in the way that PAN or Amnesty International does. *Index on Censorship*, for instance, is a particularly effective group, not because they do all that much about it but because they bear witness. If you read *Index on Censorship*, just open the back of it. There's page after page after page. "This editor was blown up with a suitcase bomb. This reporter was hauled out and beaten with sticks. This guy was jailed for what he said."

All over the world, people are making declarations of *Kulturkampf*. For instance, Newt Gingrich has been known to say that he would like to declare war on the counterculture. He said it feels like this is the enemy and his counterrevolution won't be complete until he can force all these beatniks and hippies to own up that they were wrong all along. It's a potential ground floor for an American *Kristallnacht* or a Night of the Long Knives. There's something really peculiar about it, but there's also something really peculiar about being some harmless female newspaper columnist in Bangladesh and having mobs of people bay for your blood. So I think this sort of stuff has to be watched. I think censorship is a more powerful urge than sex.

ZIP IT

**M2: I also wonder how much self-censorship is a factor in times like these.**

BS: Of course! Anytime there's a climate of terror most people shut up. And I think even when there's a climate of disapproval you'll find that certain books just dry up. Like Norman Spinrad pointed out some years ago, it's far, far easier to write a book about Nazis and what Nazis believed and get it published in America than it is to write a book about hippies and what hippies believe. I mean, like Jack Kerouac—why is he obscure? Nobody has any trouble understanding what it is that Adolf Hitler had in mind.

I'm very up front about my free-expression beliefs. That's the one area of my life in which I am politically active. I'm very interested in online expression things. I wrote *Hacker Crackdown* because I saw it as an expression problem that a publisher had been raided by secret service agents in my hometown, and a book of his had been confiscated on a disk. To me this is a clear and present threat to free expression. A

So I had never been in SFWA because I really thought they were basically a worthless bunch of... But I was very upset by the developments in the Rushdie case—the "Rushdie Affair" as people like to call it. In order to make my protest over the Rushdie case known, I publicly announced

book vanishes in police custody and cannot be published. It seemed a very clear issue to me. Of course, by the time I finished the book, I realized how utterly *unclear* the whole thing is, but I'm still willing to take my stand.

**M2: How has living in Texas affected your writing?**

BS: It's been a good thing. It's allowed me to develop along my own lines. I think if I had moved to a much larger center of publishing I probably would have ended up being far more influenced by the structure of business and the received opinions of the literary world.

**M2: It seems Austin has become one of the hip places to be, like Seattle or Portland, or San Francisco...**

BS: Yes. Well, it comes and goes along that line. It's a city of the second rank, and it goes through periods of vogue. There will always be something going on in San Francisco. In Austin, there will be bright periods and fallow periods.

I plan to stay there because I'm very patriotic and chauvinistic about the place—even though it's lost a lot of the character that drew me to it in the first place. You could say the same thing about me really. I sort of *deserve* to live there. It's not the city I lived in when I was 18, but I'm not 18. I don't act like an 18 year old. And I don't deserve to live in that city now. I deserve to live in a city where guys who are 40 and have big whopping sums of money are supposed to live! [laughs]

**M2: I know, of course, that you're an advocate for computer technology and maybe I'm just a Luddite, but when I go to a café and see people putting in quarters to use the Internet machines and not interacting with each other, I find myself wondering...**

BS: I think you're actually seeing somebody *gaining* something there, because *most* people on the Internet are sitting entirely *alone* in a bedroom. The idea of having 30 guys in the same room on the Internet is actually a considerable *gain* in interpersonal relationships... Now it's a loss in terms of a coffee shop. But I actually think that television bears a much, much heavier blame than the Internet. On the Internet, people are talking to other individuals. With television, you've got an entire population narcotized by emanations from a central command point. What the fuck is that about? The Internet is like a sign of a bunch of zombies with salt in their mouths and their lips sewn shut actually rising from the grave, vaguely sort of patting one another... I think it's actually something of a positive development.

**M2: Terence McKenna says that there's a covert effort to anaesthetize the masses with television. Do you believe that's true?**

BS: Well, if it is, it's gone. I think television has actually lost a great deal of influence. In my youth, when there were three channels and no remote controls, television was an *infinitely* more powerful medium than it is today. Today it's like some kind of knickknacker bijou as compared to the enormous glass teat that it once was. I think you can make an argument that most people's lives are full of silent desperation anyhow and that television is one of the few bright spots in their lives. Worse things may be coming. Who knows? Whatever gets you through the day. **M2**



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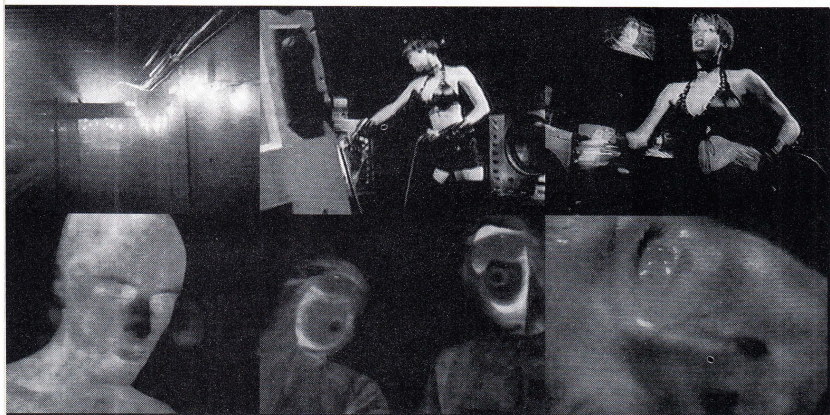


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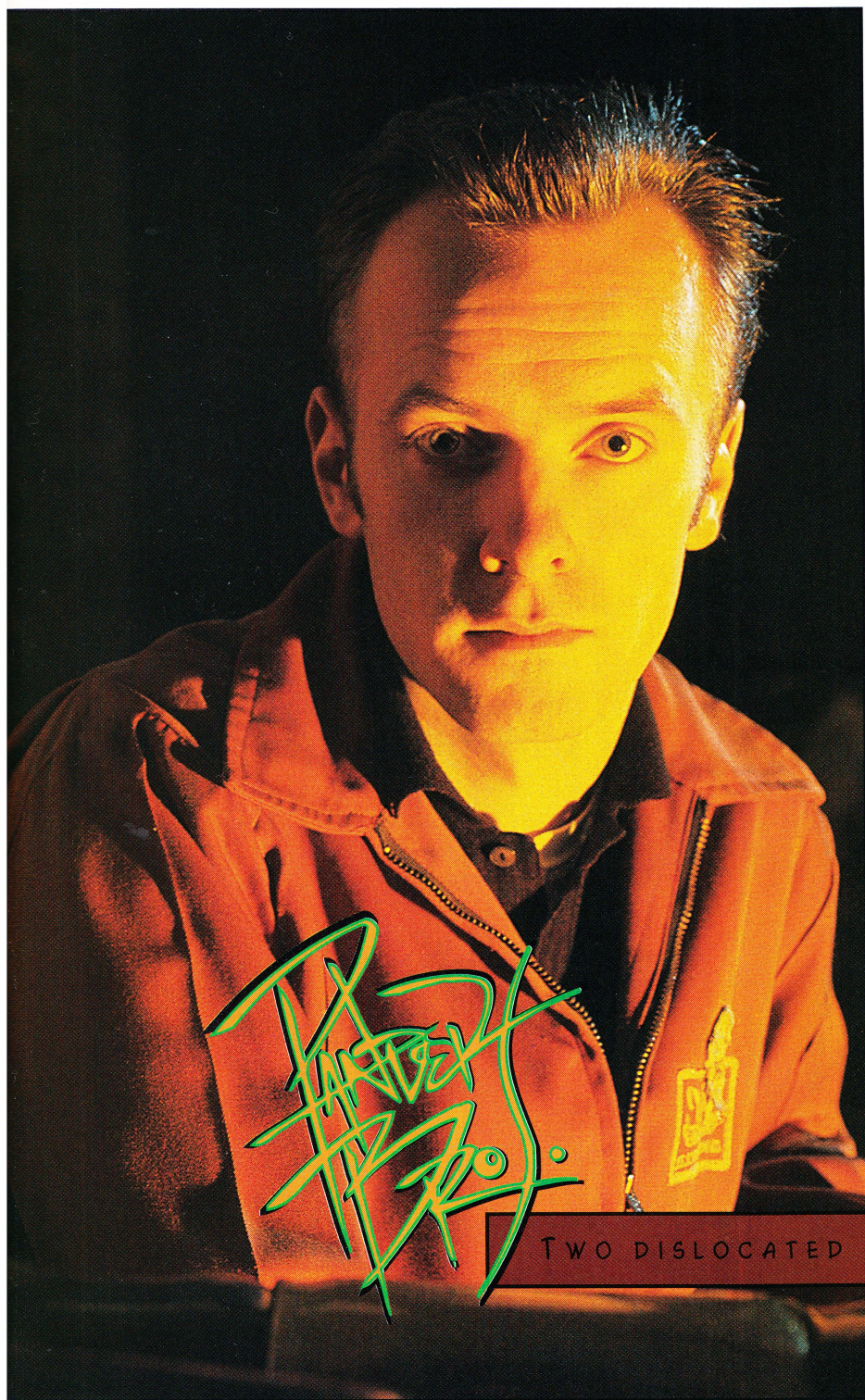
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GLOBAL SQUATTERS,

GIMLET EYES



TWO DISLOCATED HIPSTERS FROM PORTLAND



Photos by Heide Foley  
Assisted by Scott Coleman

TRIPLE X>

MONDO [91] 2000





Stewart and Cyril Marcus were famous gynecologists. They made perverse surgical tools, took too many drugs and OD'd. It's a bit of luck that Jacob and Arnold Pander aren't twins. Even so, you can see them at conventions, arms entangled, working on a single drawing. They finish each other's sentences. And even when they don't, there's a feeling of complicity, of something that's unsaid and you'll never know what it was. Hand in hand, they stroll casually between worlds—fashion, graffiti, film, performance art and comix meet at their hub.

Behind the camera, they've worked for Deee-lite and Gus Van Sant, but it's in the world of comix that they pander to the deviant palate. Their drawings are a slick mix of manga and Georg Grosz, which they applied to graphic effect for Jerry Prosser's *Exquisite Corpse* and Matt Wagner's *Grendel*. *Corpse* was grim, gray and hideous—a three part story, to be read in any order, of a madman/masochist/ murderer told from the silent perspective of his indifferent ghost. Their *Grendel's* rich in caricature and high design that brings out the visceral appeal of violent technodecadence.

In Portland, the brothers' hometown, they were a fixture of alternative cabaret and Gulf War protest, from which they beat a retreat to the familial homelands in the Netherlands. Now they've returned to deliver the creator-owned comix masterpiece *Triple X*. The title's a reference to Amsterdam's coat-of-arms and not to porno theaters, but they don't steer clear of the sexual grotesque, as scenes from their new movie *The Operation* make clear.

Figures in labcoats watch from a balcony. Their eyes are flat, black discs as wide as your palm. One of them approaches a table in the middle of the room. Its hand slips through a slit in the sheet releasing a limp cock which glistens like gummy candy with ridges of brightness rising to the tip. The cock slides into an aperture beneath the flat discs of the face which is now the mask of a fighter pilot sucking greedily on an air-hose. Clothes fall to the floor. Translucent flesh slithers and melds.

—PM

BY PAUL MCENERY  
WITH MIKE KENNEDY

#### SURGICAL STRIKE

M2: Did you ever finish that film that you were working on?

Jacob: Well, that piece is both a less linear kind of storytelling and a more aesthetic, visual exploration of erotica. It's kind of a mystery in and of itself cause it still has to be edited and...

Arnold: It looks like a dream...

JP: Yeah, a shot of a dream, and it's got this effect where you can kind of almost see through the skin of the people. They're like kind of molten glass and you really see the heat on the bodies and the way they change in relation to what they're doing together. The thing itself was kind of an experiment in pure curiosity, and it's kind of taken on its own life.

AP: Yeah, when the camera was pointed at the character, we were amazed by...

M2: Let me see if I've got this straight. You've just shot a stag flick in infrared film?

JP: Yeah, it was shot in video with a camera that could read infrared—a security camera—and then it went directly onto Beta SP tape, so it's almost like a medical film in a strange way.

AP: And that's why it's called *The Operation*.

M2: Did you have any sense of the mood it would invoke, or did that come out of the initial experimentation?

JP: Yeah, but not nearly as much as once we really started setting up those shots and playing out the action.

AP: It played tricks on, say, metal—the way light would hit certain things that we didn't expect. It gave us more than we bargained for.

M2: So why did you pick a security camera for this?

JP: Well, actually I just picked the camera that did the trick. Shooting it in film has got a real different kind of...

AP: Infrared.

JP: Yeah, infrared film, it's more complicated. Even when you're doing still infrared photography, you have to do a lot of experimentation and then bracket off that thing, look at it and

then go back and shoot more based on what you learned. And when you're dealing with film that's so expensive, we don't at this point have the luxury of that much experiment. The camera went straight to tape and got that effect, so we just went with it 'cause it looked cool.

M2: I thought it might have something to do with voyeurism and control, you know, picking up a security camera...

JP: Ooooooh yeah, well I should have a cutaway shot of the security camera.

AP: The camera itself would have looked good on camera but we couldn't tell much in infrared 'cause we only had one camera.

M2: Put it in front of a mirror. No, but then you wouldn't get the heat signature off of the reflection, I gotcha.

AP: Put a fire under it or something, blowtorch it.

M2: Speaking of clinical, isn't there a mad scientist in *Triple X*?

AP: Well, the whole concept with Zempf is he's a kind of DIY person, too. He's probably living hand-to-mouth and coming up with this serum and trying to get the big contract with the multinationals.

M2: Is he a surgical doctor by any chance?

AP: You explain him since he's your brainchild.

JP: Is he my brainchild? I wanted to draw a weird guy, but a surgeon? No, I don't think so. He's more of a biological surgeon. He worked for Brain Labs, that was the more government-oriented research laboratory...

AP: ...well, reanimation-oriented, bringing the dead back to life kind of thing or using these manipulative serums on the living. So he ended up getting fired from Brain Labs and now he's kind of a rogue. See, we don't want to tell too much of the plot...



**M2:** I read an old piece about that bus you painted. Your dad says, "We're like microsurgeons with our X-acto knives," and you say, "It'll be like peeling off a skin, a pagan ritual, a mysticism of intention." And here's a sex movie called *The Operation*. What's up?

**AP:** There does seem to be a theme, doesn't there?

**JP:** What is going on? Good question.

**AP:** Research and development. Even inking these comics feels like working in this kind of probing... You're working on people and drawing their fingers and their heads and their eyeballs and you start to kind of feel like you're playing God or something.

**JP:** Even writing something is kind of social surgery, dissecting the people...

kinds of lifestyles. But at the same time we want it to be pretty funny and as well, erotic and maybe even surreal at points. More so than wanting to do things in a political realm or an action-adventure realm, we really want to just keep the feeling of an international vibe to the work because travel and exploring the world is really important to us. *Disco Milano* is kind of in relation to that. It's just a next natural step from *Triple X*.

**M2:** I'm glad to hear that your fashion work's not all in the past.

**AP:** Well, even in *Triple X* we have some style consciousness. I mean there's all these different economic worlds we're juxtaposing—the multinationals with the squatters. They're in conflict and they each have their own fashions. You can look at that and just have a deeper resonance...

**JP:** When we went to Europe, we hung out in Amsterdam and essentially just kind of sat around. I mean it sounds bad, we were broke, but we just sat around and watched people because this was all foreign—going to squats, hanging out in environments that would help us create the mood and the feel of it.

**M2:** It was research, man. We had to hang out in the hash bars.

**AP:** Our family at the time, they were kind of rolling their eyes, but to us it was just work. As foreigners, you're an outsider so you just have to kind of observe and get ideas.

### THE SKIN OVER THE CHEEKBONES

**M2:** You took a pretty unusual route into comix, didn't you?

**AP:** When we were younger, fashion illustration seemed to be kind of a likely direction to take before we even got into the comic book industry.

**M2:** The Andy Warhol road to fame and fortune?

**AP:** Yeah, choose your pop culture path. We saw Antonio Lopez who at the time was one of the hottest fashion illustrators in New York. He was really about to blow out a whole new kind of look. It was more exotic and really colorful and just beautiful. It really kind of gave us a charge. We saw him do live art at the Frye Art Museum. It was a sight to behold, just how lucid he was. That gave us some inspiration to even do some live art types of work in...

**JP:** ...well, performance events and stuff...

**AP:** ...yeah, so he died about a year later in '88 of AIDS-related illness. So when *Grendel* came along we were fresh off of this initial inspiration of really wanting to do art that spoke to an international audience, which fashion illustration seemed to do on a fairly romantic level. That kind of seeped into the *Grendel* series, gave it that feel.

**M2:** Are you ever going to go back to that world?

**AP:** Well *Disco Milano*'s a project I'm developing with a friend of mine, Marne Lucas—she worked in the fashion industry for a number of years and wrote a lot of observations while particularly in Milan, where it can kind of make or break the career of models. A lot of times these women have to end up selling more than...

**JP:** ...than their looks...

**AP:** ...for potential success in that industry. It's kind of a mix of looking into that industry, looking into that world of glamour and self-analysis and...

**JP:** ...motivations into that destructive...

**AP:** Yeah, how it takes these characters into real self-destructive



### WHO WATCHES THE WATCHMEN?

**M2:** So have you always had a voyeuristic relationship to people?

**AP:** Yikes!

**JP:** Every artist needs that asset. I would say we have always been sieves

to visuals and characters, especially here in America. Like we showed *Triple X* to our father, who grew up in Europe, and he told us they look like Europeans but they act like Americans. I think we really have gotten most of our influence from American culture and also just from a plethora of American types.

**M2:** You don't think that's just a global village feature?

**JP:** It links to it. Once you go into an international setting you see this whole different type of character. We lived in this alley where there were junkies coming in all the time, so that gave a certain kind of world. But then right up across from us in this window was this guy—speaking of voyeurs—who was always looking in at us. But then we'd of course in turn end up looking at this person across the way. He'd wear the same shirt everyday, always wore stripes, and



we were amazed. Those kind of things stood out about Europe, and about Holland in particular. You have to extrapolate a little bit from what you're directly seeing in front of you and make it a little more fantastic.

AP: Yeah, just being there and reflecting both on the reality of our situation and playing around with fantasies—and then dealing with being the stereotype of the American.

**M2: Upping sticks to go to Amsterdam, that's such an American thing to do.**

AP: Yeah, we figured there's a few Hans characters [*the hero of Triple X—eds.*] that float around, looking for something, or trying to run away. They're still trapped in their own body and the world is shrinking. Those same problems extend to Europe and it's really all interconnected. Seeing it manifest itself through an event like the Gulf War where it was a United Nations kind of game plan—you go to Europe and every single country is pissed off at America, not because they're going to war but because they made more money off it.

JP: The general tightening and more restrictive political atmosphere grew around the making of this thing, so it found its way into it. Even when we were in Portland working on it, we actually had an art co-op that we were involved with and different kinds of art protests were happening, different pranks.

AP: It motivated us to really find the content. There are parallels that were happening in America and Europe simultaneously. One of the keys to *Triple X* is finding what we have in common. By the time we really got down to figuring out the psychology of these characters, it started to go deeper into the issue of the displacement factor. And even if there isn't some kind of total police state, we wanted the story to be more realistic, and technology is kind of forcing its way into society.

**M2: Like how?**

JP: We were dealing with the pros and cons of the global village. The original conception was to do a more political *Tin Tin* kind of espionage intrigue thing, but having the basis of it be this political ground with this underground newspaper, this myth surrounding this long past source of truth silenced by multinationals but that could be revived in this new environment.

**M2: And how does displacement fit in with the global village?**

JP: It can be even the displacement of the technology against people that don't understand it yet. I mean it's like cultural displacement, alienation.

AP: Or the lack of access to the technology.

**M2: You don't all have Internet access—or brain implants—yet.**

AP: Yeah, there's no bar codes on our necks yet. There is that feeling that technology is linked to the elite, so the pure form way to break it down is just to pour information through any level...

**M2: Whatever means necessary.**

AP: ...matter or film or the technology that we have at hand to get our ideas off of. Even for us it was like finding the medium. We wrote this like a film, but we wanted, it had to be a comic book because that's all we had access to...

**M2: So spraypaint on a brick wall is just a lo-tech posting?**

AP: ...but now we're contributing to image pollution so there's no escape.

AP: It's not really like a techno comic, but then it's not a post-nuclear comic either. It's the technostate in the sense that the people who have access are the people in power—the flying cars are usually police cars. So the technology is advanced but it's limited to specific individuals. And so is power. The idea of political resistance is almost outmoded in the environment of global circumstance. It's just venting. Seeing a thousand people gathered with their fists in the air—it just doesn't have the same kind of impact.

JP: If you have a bunch of people angry, the media will thrive on it, but just the anger element, 'cause that's the catch of the story. They just take the energy they see and reenact it. But if you really have people that are trying to turn their lives around, then the media will respond to that, too. There really needs to be something more internal that affects everyone to realize that there needs to be a change. We try

to link media as a power element.

AP: We have a media conglomerate world in the story. So *we* kind of monopolize information and become essentially like kind of the spokespeople for this multinational entity in the book. So the character suddenly becomes intermixed with this

WE DON'T HAVE  
BARCODES ON  
OUR NECKS YET...

media conflict as well.

JP: A lot of those problems aren't even political, it's just...

AP: ...misunderstandings...

JP: ...problems of abuse or problems of just daily interaction. It manifests itself on a political frontier but really it's social discourse where the tension lies.

AP: That's the thing even with the Internet, you have a potential massive melting pot without all these borders, hopefully...

JP: ...or prejudice...

AP: or prejudice. You are just information. There's a certain truth to that that is kind of...

JP: It's not the fact that you're purple or whatever...

AP: We're just confused, we don't know...

JP: We just want to dive in so we can talk about it.

AP: We're kind of looking, putting out our feelers, creative feelers to see what other mediums to work in.

**M2: Like what?**

JP: Well, we want to do music video work. That's kind of the next thing, is getting into that. It seems like a link between potentially doing more personal work and being able to potentially make a living.

AP: Doing commercials is also kind of like doing graphics. You get into a work-for-hire situation and a lot of times you're just paying the bills with that. We would like to bring more music into our subject matter—comics are very silent.

**M2: Are you planning to leave comix completely behind?**

JP: No, actually we need a break, we've been drawing solid for like two years. You lose your spark if you're that disconnected from the process of creativity—and it's really isolatory drawing these comics. We're still going to work in the comix medium definitely. We're just ready to deal with the storytelling, but in a fresh kind of medium.

AP: We end up going back and forth from either doing theater performance stuff and then going into this total isolation. Like when we were living in San Francisco, we just holed up in our apartment and just drew solid.

**M2: Do you guys go on a social binge/purge cycle every few months?**

JP: Well, like in the form of different projects, that's kind of where it comes. Like doing a film is a major collaboration—it's totally working with other people and it's just really refreshing and exciting.

AP: It's really hard work but it's just a much more invigorating process.

#### PHOTO OPS, MEDIA TRICKS AND COMMERCIAL BREAKS

JP: The whole popularization of the computer and the whole information highway has kind of happened alongside us. We didn't go out to make that analogy as much as it kind of flowed together as we developed the script.



**M2:** Was the 30-second commercial for *Wired*, was that...?

**AP:** That was a separate project. When we moved down to San Francisco to ink the series, we hooked up with this production company called OSC. They were really happy with it, but *Wired* magazine felt it was too provocative.

**M2:** So did that never see the light of day?

**AP:** No, it hasn't. We shot in this basement, this hallway. The image was traveling at high-speed down a hallway and then you'd go into this room and there's this leatherclad woman with these gears, you know, kind of controlling this power room and she's just kind of, yeah, kind of like a *Wizard of Oz* feel.

**M2:** Excuse me, I think you saw a different cut of the *Wizard of Oz* than I did.

**AP:** Well, you know, like somebody behind the scenes, you know, pulling the strings. So it was more suggesting technology through the individual, but *Wired* interpreted it a little differently. They gave us creative freedom with that project, but sometimes it backfires.

**M2:** I hear you guys are getting into CD-ROM.

**AP:** Yeah, OSC were really kind of opening us to do that.

**JP:** They designed that DACS program and they work with Avid people, but they were just kind of exploring the CD-ROM thing and turning us onto computers in general.

**AP:** Yeah we just felt the comic book medium had a lot of potential—not just the narrative but the interactive elements.

**M2:** In the aftermath of *Natural Born Killers*, there's maybe a better audience for mixed media. Is that the way you see yourselves going?

**JP:** I think we want to. We've done some film manipulations onstage and it really varies, depending on subject matter. In Oliver Stone's film, it worked with those characters to have sensory overload.

The thing that was really exciting about that is everybody was totally engrossed and accepted this very abstract storytelling. And it seems like that's based on being weaned on really wild cartoons.

**AP:** When you're a kid you don't question people flying or Wile E. Coyote hitting the ground from a thousand feet up and living through it. As a child you just kind of take it, it's pure.

**JP:** These films seem to be opening up this door to Surrealism, which is a direction audiences are kind of fascinated by and willing to accept.

**M2:** Have people simply lost the ability to think and chew popcorn at the same time?

**JP:** It's a double-edged sword. How much of it can we justify as entertainment and frivolity—or even a serious exploration of ideas—and how much of it is just pure desensitization?

**AP:** Well, *Easy Rider* was a better road film. *Natural Born Killers* didn't have a lot going on in terms of character. It just had constant image-barraging that *almost* compensated for it.

**MISTAH KURTZ... HE DEAD!**

**M2:** I've heard Oliver Stone complaining that people didn't get it.

**AP:** There wasn't much to get. By the time you came out of it, you were just kind of spent and I think just the process of watching it was probably the thing that you could get, the actual observing the horror.

**M2:** Well, when it comes to morbid satire, Matt Groening accomplishes the same thing in 15 seconds of "Itchy and Scratchy" anyway.

**AP:** Yeah, really, and more entertaining.

**M2:** Stone had trouble getting his movie into England. Have you managed to escape all that?

**AP:** Well, *Exquisite Corpse* was banned in Canada, England and

New Zealand. We weren't catering to sickos or exploiting anybody. It was really just a terrifying exploration of character. So it was revealing that we're definitely in a time where people react purely to what they see and they don't put it in context. They take it and apply it to their own fears.

**M2:** It sounds like displacement again.

**AP:** A lot of times when people see something in a context, it offends them more. It's the don't-kill-the-dog syndrome. If you have an emotional connection to something that's murdered in front of your eyes, the tendency to react is greater than, say, seeing a barrage of people slaughtered in a killing spree. That becomes more palatable. We can handle the violence visually, but we can't handle the emotions behind it.

**JP:** Like say there's a scene where the young boy's abused. You could draw it in shadows, or you could draw it very graphically, but you would be projecting your own morality into it. Either you would be

exploiting on a hypersexual level or you would

be not showing it and therefore creating a kind of exotic mystery which is also...

**AP:** For the character himself, it's just another day in the life, so by injecting a lot of moral ethics into the imagery, you taint it or take away from the objectivity of the audience as well, you kind of lead them into a way of perceiving.

**M2:** That's almost clinical, yet it still ran into borders and barriers.

**JP:** That's why it did, actually. Our methodology made it so there was no easy answer. That made it really difficult to look at. And the guy didn't get lynched at the end, so that was frustrating.

**AP:** Justice wasn't served. It was just pure horror.

**JP:** When we really analyze and look at it—if it's violence or sexuality—it's really important to explore within our own passion to drive the story...

**AP:** ...and don't hold back. **M2**





# Some Son Also Rises

*L*ike Dizzy Dean said, "It ain't braggin' if you really done it."

For a decade, Spin magazine has given us a lot more than great rock journalism. Spin championed free speech in the days of the PMRC. Celia Farber's brilliant AIDS column is still the only regular investigative reporting on the subject to be featured in a pop culture magazine. And don't forget the issue that featured the Trojan ad with a free sample condom. There are frequent articles from the three Bills—Gibson, Burroughs and Vollmann. And the hysterical, mordantly funny endpages by the late Michael O'Donoghue.

Bob's saga is a story of pluck and luck. The luck to be handed a magazine by his father at the tender age of 28. The pluck to have kept it going after the numbers men said pull the plug. Bob's skillful weathering of that crisis became legendary in publishing circles.

Tim, Bob and I smashed away at the Old School magazine publishing game. The rivalries, dirty tricks, and low blows. Timothy described it well: "This is the New Style of Publishing—coöperative, incestuous... and fun! Can you imagine the editors of Time or Newsweek joyously spinning tales together at a rock 'n' roll party?" Musicians know about this. They jam.

Guccione knows how to jam. He's a complex bundle of brio, gusto, and furbezza—overlaid with a British accent. He's also a connoisseur of fine wines and finds "cooking to be like a meditation." He cooks a mean dish of bachelor Italian.—JM






PHOTOS BY MIKE MCGOVERN



# MONDO 2000: So Bob, how did you get like this?



Bob Guccione, Jr.:  
What, prone on the  
floor of Timothy  
Leary's bedroom?  
Therein lies a story.  
AARGGHHH! [*dramatic moan*]

M2: What happened to your back?

Bob: I hurt it exercising, so of course everybody I've met since  
then and told that to just *beams* with this great big lethal smile because  
they don't exercise. But somehow I don't think your question is about my back.



**M2:** How did you get like this—what long tortuous route? —and I'm sorry about your back.

Bob: Well, a lot of it is blind luck. A hell of a lot of it is just stubbornness. And part of the stubbornness is a conviction of two things: one that my work was meaningful—the magazine was meaningful, and the work of the many people who put *Spin* together is meaningful. The other conviction was that they'll tell me when it's over. You never have to ask. They come and they tell you, it's finished, it didn't work, it's done, they're repossessing your desk, you have to go away now. And until that moment, I never gave up.

And I went through amazingly tough times financially—some of which is pretty business environment that publishing has known in forty years. And in the we prevailed. We not only survived, we prevailed, because, I believe, we were clear-focused. And the fact that we worked for the readers. It was never a question of compromising the magazine because we knew who our bosses were. Our bosses were the readers. And I've often said in editorial meetings, we're like a public company and the readers are shareholders and they will vote us out if they don't want us anymore. They'll go read something else.

**M2:** You were called "uncompromising"...

Bob: Yeah, not compromising what you're about has been an essential business strategy. Very few people see it that way, so when someone like myself says it, it sounds like A) I'm being pretentious—which I'm not; or B) that I'm mad which I might be—

**M2:** You were called "uncompromising"...

Bob: Yeah, not compromising what you're about has been an essential business strategy.

Very few people see it that way, so when someone like myself says it, it sounds like A) I'm being pretentious—which I'm not; or B) that I'm mad which I might be—

which I'm not actually, but I might—I'm closer to mad than pretentious. And the key for *Spin* was always to keep in mind what our mandate was which was to tell the truth, to challenge things we thought should be challenged, to advocate the things we thought were worth advocating, to be honest. It's easiest being honest, Mark Twain said. If you're honest then you never have to remember anything. It's sort of a good philosophy.

**M2:** So you stuck to your guns...

Bob: Yeah, but not without tremendous amounts of fear, I gotta tell you, not without tremendous bouts of depression. Personally of course, I was often very frightened and beleaguered. I tried not to show it to people, but I think collectively we had moments of it. And yet throughout all these difficult times, there was just never a question of giving up what we were about. Now we're only more empowered to be who we are, and of course we're also older—ten years older—and just as idealistic, and just as much a

# SPIN's Bob Guccione, Jr.

believer in the human spirit and the human ability to create art and to do good and to expose wrong. But I'm ten years older and therefore a lot more experienced and a lot tougher. I was talking to a woman recently — I had some sort of crisis, and she said, oh my god, you'd better get out! I said, no, no, no, I've done this long enough to know it will sort itself out, I'll deal with it in ten minutes. And it's nice to feel that way. So I think the magazine is kind of inured in its own way now.

**M2:** So you started a pop culture magazine disguised as a music magazine.

**How? Why?**

Bob: I started the magazine most of all because I was frustrated as a writer and I wanted to abandon writing. I had failed at it so the next step was to extricate myself from this turgid failure.

**M2:** What did you do? Did you study writing at University?

Bob: No, I failed high school. I literally am not formally educated. And I'm not sorry. At the time I thought I'd be deficient for not having an education. No, I don't think I did

actually.

To be honest, I never thought I'd be deficient. And certainly as the years have gone on, I've seen that I've learned other things in its stead. During the time when I would have been at school, I was out trying to get a living from, develop as, a writer. But I felt it was weird because I was just too self-conscious and just not good enough, and I didn't realize that you had to write millions of words before you began to get fluid at the art of expression. I thought if you couldn't do it in the first three pages you were useless. And so I decided that I wanted to do something else, and I thought I'd build this business, this edifice that would just be so vast that I would never be able to write again. And of course as a result, I've written more publishing family. Would you talk about that?

Bob: Growing up at Penthouse? In the Penthouse family?

Sure. I learned a lot about journalism. And it's ironic, in my professional career at Penthouse, it was never on the editorial side, it was always on the business side,

'cause I sporadically worked at Penthouse for my father, and the rest of the time I was a writer outside of Penthouse. And very rarely did the twain meet. Though I did write a couple of pieces for Penthouse and a couple of pieces for *Omni*.

**M2:** What'd you write about?

Bob: I wrote about two cops who solved a big rape case about a nun who was raped in Harlem. It's actually a good story. I wrote some music pieces. But I wrote very little journalism. I wrote fiction mostly and it wasn't

In conversation with

Jas. Morgan



# I am closer to mad than pretentious

very good.  
But I learned  
a lot about

journalism and the need for  
courage because even in the late  
70's and early 80's, journalism  
was retreating. Journalism was  
like the Democrats are today in  
politics: cowardly.

**M2: I can see that.**

Bob: And, by the mid-80's, of  
course, it had completely given  
up the fight and was by and large  
nothing more than drivel for  
celebrity. I think celebrity is one  
of the great American corporate  
genders. Whereas journalism's  
vaunted tradition was distrust of  
the establishment, it was now like  
a bunch of people trying to get  
across the velvet ropes outside a  
club. Even the great bastions of  
counter-journalism in the 70's—*Rolling Stone*, *New York* magazine,  
*The Village Voice*—were sucked  
into the great establishment. Far  
more concerned with how to  
maximize advertising dollars and  
co-opt corporate America into  
their book than with challenging  
it. Yet *Penthouse* had always  
challenged this.

I grew up proud of my father  
for some of the articles he did.  
I'm not going to pass judgment  
on the sexual content of *Penthouse*.  
I'll be honest and say that I no  
longer think it's cutting edge.  
The sexual revolution was won!  
People like my father won it! You  
know, it's done. It's over. It doesn't  
need to be fought anymore.

But the good journalism of the  
70's when *Penthouse* attacked the  
CIA and the Nixon government  
and even the Carter government  
and of course Reagan, was really

good stuff.  
And as  
romantic as

all this sounds, and it'll look  
mushy in print, but the truth is  
that that compelled me.

The thing that I kept with me  
at all times, when I was going  
through that thing with *Spin*, was  
that we only had one reason to  
exist. And that was to be honest  
with our readers. That was it.  
Otherwise, what the hell. We  
could be a catalog or be a mail  
order book. I mean, *whatever*!  
There are better businesses than  
starting rock magazines, I'll tell  
you that!

And that's what I took away  
from my experience working for  
my father. This tremendous...  
maybe it's Sicilian-stubborn  
courage and willingness to fight.  
I mean, I've always said you don't  
have to ask me twice if you want  
to fight. I'll hear you the first time  
and respond. And that definitely  
comes from my father.

When *Penthouse* was attacked  
by the people who wanted to ban  
pornography, he always fought  
back. Essentially his attitude was  
that there is no tomorrow if you  
don't fight today. If you don't  
fight for your position today you  
won't have one tomorrow. You  
won't have the ground to fight on  
tomorrow.

**M2: Didn't you get embroiled  
in the rock 'n' roll censorship  
controversy in '86?**

Bob: Yes, and surprisingly very  
few people in the press and the  
media stood up for rock 'n' roll  
lyrics. A lot of people like to  
think they're First Amendment  
supporters, but you know, you

start editorializing in one of the  
major newspapers against rock  
lyrics and there are very few  
people around who rush to the  
defense. Especially rap, by the  
way: nobody really wants to  
stand up for the rights of black  
people to start getting angry.

And right from the beginning  
there were a bunch of people who  
were far more articulate and useful  
than myself. People like Danny  
Goldberg, who's now president of  
Warner Records. Frank Zappa,  
who was the leading proponent.  
Dee Snyder from the group Twisted  
Sister. And a bunch of others. Jello  
Biafra, I think, is the most heroic  
of all of them.

And I was the only owner of a  
media business who would do it.  
Because everybody else either  
wanted it to go away or someone  
else to take the heat. Their stance  
was, if *Spin* wanted to put itself in  
the middle of a firefight with the  
Christian Right and the establish-  
ment, then great, bye-bye *Spin*, and  
you'll slow down the enemy. Great.  
But I felt that it was important.  
One of the most interesting things  
of those whole censorship battle  
days was that I went on Christian  
television and radio.

**M2: I remember well. You  
debated Jimmy Swaggart. He  
said, "I pray for your soul for  
all the souls you've corrupted."**  
[laughter]

Bob: I can't remember the exact  
wording. But that was on secular  
TV. That was on *Crossfire*. [laughter]  
But Swaggart wouldn't do it any-  
more after that. It just saw no  
upside. Swaggart was a monologist.  
He wanted to sermonize. He didn't  
want to have to *debate* the position

because, of course, the position  
was invalid. And nonexistent. *He*  
didn't believe it even. That's the  
way I felt about Tipper Gore too  
when I debated her. I didn't think  
she was sincere and I thought she  
was just trying to promote her  
husband's name. Which she did.

**M2: And platform...**

Bob: Yeah. And basically promoted  
him as a moderate so everybody  
could love the Gores. It was a very  
cynical thing with her more than  
anything, I think.

But I did go on to the *700 Club*  
television show and a lot of other  
Christian talk radio shows and TV  
shows. And my father said one  
time, "Don't do that! You'll give  
them credibility." And I said, "No,  
no. They *have* the credibility. They  
have much more credibility than  
we do."

**M2: The Bible has credibility...**

Bob: Yeah, exactly! The Christian  
media has *infinitely* more credibility  
to its constituents than the liberal  
and secular media has to its sub-  
scribers. By definition ours will  
challenge what we write and  
publish. By definition theirs won't.  
There's no point in me going on  
MTV and saying censorship is a  
terrible thing. It's much better to  
go into the other arena and argue  
for the value of freedom of expres-  
sion. And do so as a devout  
Catholic. I'm a devout Catholic  
and I quoted the Bible right back  
at the people quoting to me.

**M2: That's right, you went to  
Mass this morning! You said  
"I'll call you right after Mass..."**  
Bob: [laughter] That's right. I go  
every Sunday.

**M2: I remember in the early  
years of *Spin* that you missed an**



issue one month. And you're legendary in publishing circles for a business judo move that kept *Spin* going. What really happened?

Bob: What happened was that originally *Spin* was published in partnership with *Penthouse*. For two and a half years. Early '85 to late '87. And at that point the magazine was beginning to do very well. Still wasn't making money but it was clear that it was on its way to making a profit. We got into a position where my father and I just couldn't continue together as business partners. So we separated. The separation left me with the name, which I owned, which is mine. And the whole concept of the magazine. And it left him without having to fund it anymore. And me with no money.

M2: So all you had was the name? And the concept, of course...

Bob: That, and amazingly the completely unbroken loyalty of my entire staff who said, "We'll continue with you without any money. We can't do it forever, but we'll do it for awhile. And we believe you'll raise the money. Right Bob?"

So I decided if I waited to raise the money, and *then* started to do the issue, that the passion would die. You know, "We fought the man and we won for a change." [*hastily*] I don't mean my father by that. I mean the sense that we walked away from an untenable position.

I thought that if I waited to raise money—which is a long and intricate little process—all that passion would dissipate. It'd be six months before we came out again and we'd look like a resurrected magazine. But if we could come out as close as possible to the last issue coming off sale, some people would never know we missed an issue.

M2: But I noticed.

Bob: And by the way, I'm a little happy to say so did most of the readers. But, the trade, I didn't think, would much care. Everyone noticed, but a month is a very short period of time. Six months is not.

Thus we decided, I decided, to work on the next issue without any money to print. And I went out to look for the financial backing. I was lucky to meet this guy I really liked, David Horowitz, who had been the original CEO of MTV and understood the growing importance of this market. He saw a lot of correlation between early *Spin* and early MTV.

And believed in me personally, thank God. And he agreed to back it. But still there wasn't time to put the deal together before the next issue. So he actually *lent* me half of the \$500,000 he agreed to invest. He lent it to me in trust, knowing that I had no collateral, so that we could in fact go to press.

M2: So, Bob, tell us: what is the romance of the printed page?

Bob: [*surprised, and a bit incredulous*] Great question. Well. You've answered part of it in your question. It is romantic. I don't know why that is, but it is. The strength of the printed page, maybe the immortality of the printed word. The encroachment of technology, in all forms, from stereo to television to online, is such that reading is the last place a person can be left alone with their imagination. You can't even be left alone with music now. You hear a record and you see the video. And if you haven't seen the video and you hear the record you wonder what the video looks





like! [laughter] I mean it's not even complete without the video. Whereas, when you were growing up... eh? [laughter]

**M2: No, go ahead!** [laughter]

Bob: When you were growing up, the environment of music was all in the imagination. Not just some of it, all of it. You'd listen to "Bridge Over Troubled Water" and as an adolescent fifteen year old virgin, it was a panoply of romantic imagery and passions and tragedy and whatever else. A bit of sweetness, of love and commitment and devotion. God, there's water in it! You can read anything you want into it! Today there'd be a video of it, VH-1,

**M2: In *Spin* I've noticed not only your fascination, but your support of youth culture. What are your feelings about it?**

Bob: I like the way you put that. Part of me refuses to grow old. And that part of me is philosophical. Physically, emotionally, I am definitely older. I am not interested in trying to be younger. I don't pretend I'm any younger than 39. I don't go out to clubs as much, because it no longer is my world. I don't pretend I'm the hippest guy making rock 'n' roll all night. I'd much rather go home. And yet I love rock 'n' roll. And I love to stay out late. And I'm an insomniac.

**M2: And '93 was pretty shitty...**

Bob: It doesn't matter, you know? MTV's low points do not invalidate the music and the aspirations and the art and the comics and the literature of young people. I believe in this audience or I wouldn't bother. I could sell this magazine and be a multimillionaire! I've turned down tens of millions of dollars for *Spin*. I could be a very wealthy young man. [heatedly] And if I didn't believe in this audience I'd do it! Trust me, I'm not an idiot! I'd sell it and be very wealthy and go do something else.

But given that *Spin* is what *Spin* is these days—we are now in a very financially sound position—we now have the ability to say, "Hey, the hell with everybody!" We're only going to say what we believe. We haven't done it any other way.

**M2: You wrote the original editorial challenging the Gen X concept...**

Bob: I had a piece in the *Los Angeles Times* saying it was bullshit, this is an attempt of the baby boomers to hold on to the job market and to pretend that they're not losing their vitality. But after twenty-five plus years of being in the cat bird's seat, twenty-five plus years of the summer of their lives, they are slipping into that world. They're becoming as obnoxious as the generation they displaced in the sixties.

I was interviewed on a talk show and a guy said, "Well, don't you think it's really up to younger people to stand up for this generation? And why aren't they doing it?" And I said it's because they're young! A 23 year old simply does not have the context—I was then 37—of a 37 year old who has lived some of his life and can see where the fraud is being perpetuated. A 23 year old must have a knee jerk reaction to the fraud. The 37 year old can take it where it's being perpetuated.

**M2: [didactically] Perpetrated.**

Bob: Perpetrated and perpetuated. And so that's why I sprang to write this editorial. But I do believe very heartily in the audience, and I think that editing *Spin* is like being at the point of the river where the water comes out of the rock. Because it's the most explosive point. The most dangerous point. I'm fascinated by the moment the water comes out of the rock. That's my own personal challenge...

[Timothy Leary sticks his head in the bedroom]

Timothy: Hey you guys, come on, you gotta help me out here! We've got two sensational ladies from Babes in Toyland here, and they're both here to party! So, come on and join the party! And, Bob, it's *your* fucking party... Jas., you can interview him later...

[Bob and I pause to investigate the festive mood of the ladies. Tim speaks the truth. After a woozy hour we return to the bedroom and roll some more tape.]

**M2: [a sudden flush of bonhomie] Bob, you strike me as a spiritual man...**



of Simon and Garfunkel, folk outfits, looking over a bridge with water rushing by. [laughter]

**M2: And pan in on her beautiful face, sweet profile...**

Bob: Then it hits a crescendo...

**M2: And then you have to stop touring because you can't play it live. Should we make a movie?**

Bob: Well, Pink Floyd did. They played a live soundtrack to their own movie. Which is ironic. In a more mechanized way we've come full circle back to the days of the nickelodeon where you saw a silent movie with a piano player playing a cheesy accompaniment. And then you have Pink Floyd doing it at Shea Stadium.

But I don't want to be in a club at three in the morning because I'm 39. And that's it. Anything else would be a lie.

**M2: But of course! You and I are in our joyous thirties!**

Bob: And really enjoying 'em! And you enjoy them fullest when you enjoy what they're about rather than pretending you're still twenty-five.

I'm no less interested in the culture than I was when I was first emerging into it. The culture itself will make wrong turns. But that does not invalidate it. One bad year of Lollapalooza does not invalidate the idea of young people congregating.



Bob: Well, it depends on how you mean that. I'm a practicing Catholic. I wasn't for many years. I stopped at thirteen and picked up again at thirty.

**M2: Now, what's the appeal of Catholicism for you?**

Bob: Well, it's just that which I grew up with. It's not so much like I chose Catholicism off a shelf of possible religions in a supermarket of spirituality. I grew up with Catholicism. And I believe in God. And I just happen to believe in it in a Catholic way because that was my experience, and I get a lot out of it. A tremendous amount. It's too much to put into a couple of sound bites...

**M2: No, please, go on at length about yourself... [laughter]**

Bob: I think Christ himself gave us a clue. He says at one point, "Let nothing come between you and God, my Father." A very simple statement. But I think he anticipated the creation of the Church as an institution. Corrupted over the course of time by the human agendas.

Your relationship with God has to be sacred. If it means excluding everything that Christ initiated, exclude it, rather than loose your touch with God. That's what I take from that. I don't agree with the Catholic Church's social policies, and yet I go to Mass every Sunday. That's because I believe in the value of self-imposed discipline and ritual. It creates an infrastructure. Whereas if I have to decide each Sunday whether or not I want to go, I'd never go!

But by *not* giving it up, and by sticking with the ritual, I have a foundation...

The thing is, I don't get something from Mass every Sunday. I often get absolutely nothing from it and I'm left cold by it. Some Sundays I get epiphanies from it. But, again, the importance is the fact that there's an overall certitude in my life, an overall discipline that no matter where I am in the world, I go to Mass on Sunday. And I've gone to Mass all over the world. India, which was the hardest place to find one. And Japan, and Berlin—all over the place.

So the self-discipline in that becomes almost humbling. And that's a wonderful thing! It's an anchor. And it gives you the foundation to be able to tap into this subscription, if you like, of spirituality. I'm a subscriber. It's like getting online.

Once you're a part of this religious protocol, you can always tap into it. At certain points it's just a matter of abandonment of self to say Hey, you know, I'm all alone and I've been down here quite awhile on this planet... And I struggle daily with what are some clear and obvious and apparent moral issues. And then there are some less clear moral dilemmas.

**M2: Give us some examples of less clear moral dilemmas.**

Bob: I wrote an editorial once in *Spin* about abortion. The irony is that I became personally involved in the abortion issue as my editorial went to press. In the time between my writing it and its going to press, the woman I was seeing conceived. And, sadly, we were at the end of our relationship. We weren't really *together*. I told her I'd support her if she wanted to have our child, and I'd support her if she said "No." And she said "No."

I wrote the piece as a Catholic struggling. And I have no sense of crisis about that decision. I recognize the dilemma. And I've experienced it again since. A couple of times again. So, I do recognize that dilemma. In none of these cases was it a situation where I wanted to go on with the relationship with the woman who was pregnant. It's a horrible dilemma, unresolvable to the parties involved, believe me. I believed that a life was being aborted. But my overriding belief is that God is immune to such human tragedies. God is not being hurt. It's us who are being hurt by this thing and the unborn child is just simply returned to God quicker. In the grand scheme of time, what does it matter if you return before you are born or 78 years later? In the grand scheme of time it's a blip. I'm very happy I wasn't aborted.

I'm very happy I'm here and I'm very happy everybody I've ever loved wasn't aborted. But those who were aborted, those whom I've never met... I don't believe really suffered. I believe that God is mightier than the human struggle.

**M2: How would you see *Spin* pushing the envelope of the printed page? What will you do?**

Bob: *Spin* has always represented to me, now more than ever, the opportunity to honestly explore things that are interesting, and by that I mean, in the macro—the culture, and in the micro—the Dalai Lama, you know? But in the macro, every issue explores the culture, whether it's Green Day or Weezer or the culture they emerge from. Each heartbeat of that culture is a little different from the last one, the culture becomes a little different with each heartbeat. So *Spin* is a great way to be involved in that. Just as our friend Timothy is *ineffably* curious about the universe, so I'm curious about the corner of it that I'm allowed to shine my light in.

And where I'd like to take it is into other media, but all with the same impetus. I want to get into television. I'm in L.A. now to negotiate for television. I want to get us into documentary making. I want to get us into commercial radio. We're already on college radio. We have a book imprint with Vintage Books. I'd like to expand that in the next few years. We're online with America Online. And those are just vast new frontiers that I find fascinating.

Sometimes you run up against resistance and opposition and sabotage. Then it's a battle and I always warm to that. I always go for that, I never shirk away from that. So I believe we can do that on television as well as we do it in print, and I'd like to explode with that. Editorially there's no other frontier that we're not on that I'd like to be on.

As a joke, if you say, what are you working on? I say, *Spin's* world domination plan. [laughter] I'm not interested in world domination but I am interested in expanding into the point of, you know, infinity. **M2**





# burnt SUGAR

by David Kushner photography by Todd V. Wolfson

As Henry Rollins once said, Bob Mould is one of the good guys. A rock god's rock god, Mould's been name checked by everyone from Cobain to Stipe to just about every band who's ever tried to integrate truth, craft, and aggression. When it comes to the wall of sound, they all know who laid the bricks.

These days, Mould's living, writing, and net surfing in Austin, TX, a far kinder, gentler place than Minneapolis in the early 80's. Back then, he was one third of the seminal punk trio, Hüsker Dü. Along with Greg Norton and Grant Hart, Mould pushed the limits of speed noir until it collapsed in one of the most brilliant implosions in underground history. When the dust settled, Zen Arcade, Warehouse: Songs and Stories, and Candy Apple Grey were classic and Mould was tampering with the worst of all punk rock offenses: quiet songs.

The result was *Workbook*, a stunning and revealing solo album that Mould counts among his best. Following another solo effort, the oft-overlooked *Black Sheets of Rain*, Mould took a break and resurfaced with David Barbe and Malcolm Travis in *Sugar*, a louder, tighter trio as dark as its name was sweet. Beneath the power pop of *Copper Blue* and the psychodrama of *Beaster* was Mould's gifted songwriting: stories about people trying to connect—with themselves or with each other.

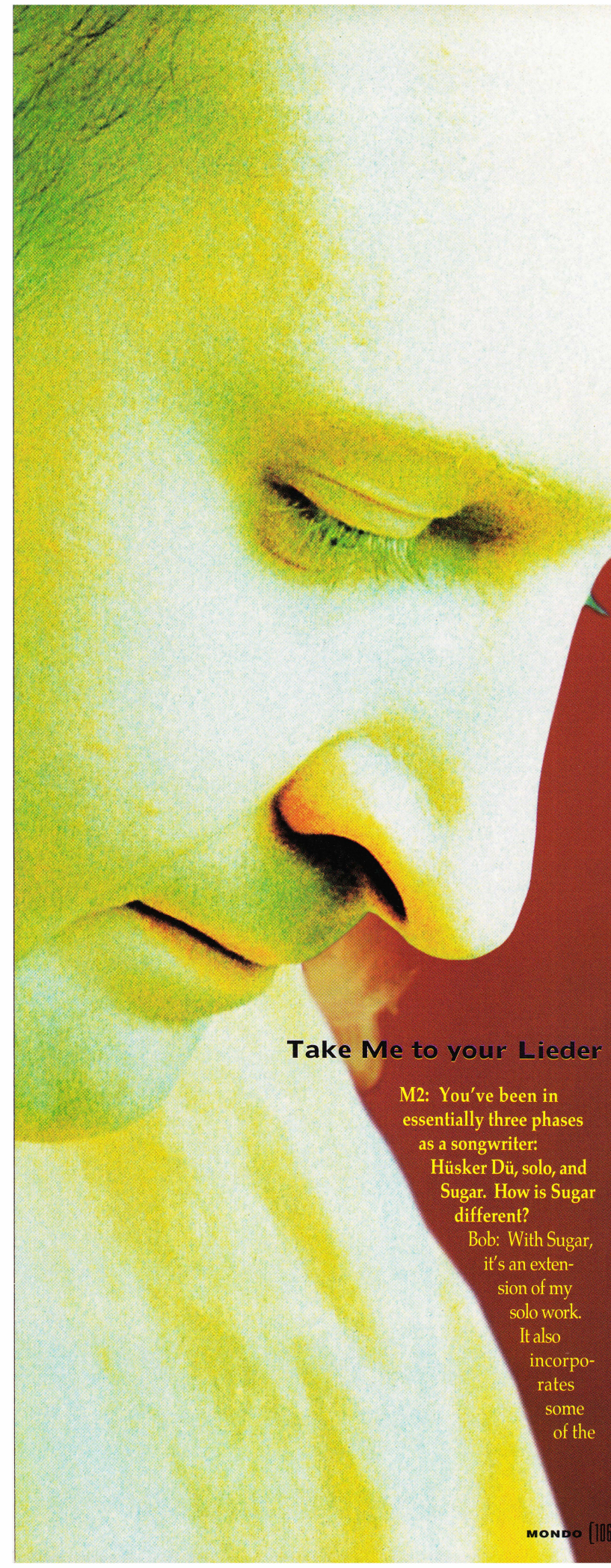
I met Mould in the lobby of his hotel in NYC during his promotional tour for *File Under: Easy Listening*, *Sugar*'s latest release and possibly Mould's happiest record to date. Mould had been busy putting the punk back in cyberpunk: overseeing a fan base on the Net and holding intimate online conferences on Sonic.Net. If there's one thing Mould takes more seriously than his song, it's his audience. Not even arthritis, hearing loss, or throat problems slow down his infamously intense electric and acoustic tours.

Sitting on the edge of a tacky couch, chain-smoking Camels, Mould hacked away at himself with precision and ease. For all his poison years, he comes off as pretty centered and self-effacing, the kind of guy you'd like to take bowling. Although I don't think that'd be a good idea. I hear he bowls 180 on a bad day.









## Take Me to your Lieder

**M2:** You've been in essentially three phases as a songwriter: Hüsker Dü, solo, and Sugar. How is Sugar different?

Bob: With Sugar, it's an extension of my solo work. It also incorporates some of the

premise of Hüsker Dü, you know, a bit of a collective identity, although obviously the lion's share of the stuff in Sugar is mine. I get sort of pulled out front of it, which we all understand and I guess that's fine.

Sugar, unlike Hüsker Dü, because we live at least a thousand miles away from each other, there's a lot of things we don't have that other bands have. When we get together, we have to relearn the language really quickly. We don't have that ongoing, daily musical dialogue, so it's always very curious the first few days of rehearsal what's going to happen, what the key words of the language are going to be for the next four or five months. [laughs] We've got a blueprint. We've got the record, we've got 35 or 40 songs to draw from, but now we don't know that language until a couple days into rehearsal.

I think it forces me to really up the songwriting ante. The songs have to really be direct and concise and very well put together, because of that lack of improvisation. We work a lot by mail. It's pretty strange.

**M2:** Especially on *Beaster*, it seems you approach the songs together as one conceptual entity.

Bob: Yeah, that was a suite of sonic pieces that really had no words until about 18 hours before I sang it. They had little ideas, but nothing. I just sat there and pounded out the lyrics in one day.

**M2:** So, where'd that come from?

Bob: I don't know. [laughs] I still don't know. That was a pretty dark piece. Just had a bad day, I guess. [laughs] On the surface. I don't know. The choice of words, just allusions to—whenever I start using the Christian words, you know something's going to happen. [laughs] Everybody's started this, oh, is Bob a religious person? No, but Bob understands the power of the words attached to religion. Everyone always thinks I'm taking on Christianity—it's like, eh? No, I'm just using their references for a while—if that makes any sense. Because those words have been stigmatized by religion. Crucifixion conjures a picture not because of what it is but what it pretends to be historically.

**M2:** When you're performing a song like "JC Auto" live now—I don't know if you even...

Bob: I'm not getting into that anymore. [laughs]

**M2:** You're done performing that song?

Bob: We spent our last year doing that, but anyways, go ahead.

**M2:** It just seems that going back into a song that intense...

Bob: It's not much fun really. [laughs] There's an interesting sidebar to all this that'll help explain it better than anything I can say: Ryko, one of their offices is up in Salem, historic Salem. They have a summer series up there where I guess they reenact the witch trials. I heard about this from an old art professor in Minneapolis, somebody I used to collaborate with on some things. She told me it was a mother and daughter team, and every half hour five days a week for eight weeks in the summer they would reenact the child accusing the mother of being a witch for this little play. And it posed the question to me: at the end of eight weeks, did the child and mother really think that the mother was a witch? So, [laughs] I think that's my answer as to how I feel about that stuff.



If you're up there screaming that shit every day, you start to get confused. It starts to transcend this neat little alternative record on this indie label and starts to turn into this very large albatross that you've put around your own neck. Yeah, it really damages you. It's not a lot of fun. I don't intend to ever do it again on a regular basis ever again in my life.

**M2: Performing these...**

Bob: *Beaster* as a cycle as it was intended to be. I think it's going to have to be chopped up a little bit if we ever delve into it again. So, yeah. That's why this new record is a little lighter, obviously. [laughs]

**M2: It still has its moments.**

Bob: "Explode and Make Up." Yeah, that's a gut wrencher. It seemed fitting that it would be at the end. Traditionally, it's not different from "Sacrifice" or some of the other bloodletters that always end up at the end of a record. I do think that I gave it a nice spin with the last minute or so, having that really deep echo where it reprises acoustically and sort of suggests the cyclical nature of the title.

**M2: I've noticed that with a lot of the Sugar ones. They seem to be very choreographed in a circular kind of way.**

Bob: Oh yeah, well I'm from the old school. An album is like a book. [laughs] A lot of people now, it's like it's the two videos and then 45 more minutes. I don't get that. It's weird to me, the idea of videos or singles because that's like pulling a chapter out of a book, taking it out of its context or out of the movement that you've placed it in. I mean, sequencing records and writing records. When I get my cornerstones for an album, I write inside of those and around those to try to make it move.

**M2: When you think back to a song like "Explode and Make Up," does that start with some music or a lyric or a feeling...?**

Bob: It just started with "I hate you." [laughs] It was sort of the anti-thesis for the normal thought for a song. Then, just a really simple melody started to build up around it, just the idea of the cycle.

## AH YES, I REMEMBER IT WELL

**M2: You've had some interesting signposts in the past year with the release of the live Hüsker Dü CD and then the compilation of your solo work. Was this something that you had initiated or did it just happen?**

Bob: The rest of the people in and around Hüsker Dü were pushing for it to happen years ago and I was like, no, no, no, just give it some time and some distance, because the aftershocks from that took a lot of time to settle down.

The live album was a good one. The Virgin thing—I have no good things to say. I had nothing to do with it. I just think the idea of them pulling apart a record like *Workbook* is just, you know—I hope nobody thinks that was *my* idea, because it certainly wasn't. I was told it was going to happen. I had no choice. I asked them, "if you truly feel compelled to wreck these records, at least keep me posted as to how you're going to do it."

I saw it in Sacramento two days ago for the first time. Pretty sad. The liner notes are very inaccurate. The packaging is pretty bogus. The cover just looks horrendous, totally out of character for either of those records. And just reaffirms everything I thought about that record company three and a half years ago when I left. This was not a good marriage. [laughs] If the completists have to have the live tracks, I would suggest waiting until you see a used copy. [laughs]

**M2: I heard you'd like to teach a course in pop culture someday.**

Bob: I'd love to do that when I get too old for the form of dissertation I have going now.

**M2: What would you teach?**

Bob: Well, at McAlester there was a pop culture department in the history department. There was a pretty good professor who'd written just some books about McLuhan, how media affects culture and how we interact vicariously. Especially in the 90's now that everything has disintegrated into gossip, hearsay, and freakish behavior.

What would I teach? I've done some guest lecturing and I tell them how it's really important to have your tools around you all the time. If you want to be a person who documents and takes your visions and interprets them to people, then you really have to have your books, your tape recorders, your cameras. Anything is fair game and you always have to be observing what's going on around you. That's how you get inspired.

It's not like: I want to be a pop star because I saw it on TV. There's too many people doing that and it just cheapens the art form. If you truly want to observe relationships between people and objects, people and people, people and culture—just lay low, keep your eyes open, stay involved, but just *absorb*. That's the main thing.

**M2: So, how do you see yourself in relation to this movement of so-called "alternative" culture?**

Bob: Ecch! I seem to have existed and survived through so many musical trends in the last 15 years. It's very curious, as I travel along and another one comes by, they sort of grab me and say, "oh, here's the neo-psychedelic part of Hüsker Dü; here's the neo-hard-core part of Hüsker Dü; here's the sort of angst-ridden singer/songwriter part of Bob Mould; here's the postmodern part of Sugar." It's like, you sort of get overwhelmed by it.

You're like, "wait a minute—are you just looking for another person to come to the party or are you just trying to get me to wave the flag? [laughs] I'm just doing my work. Why are you trying to drag me into this?"

Yeah, it's a little frustrating. I know it's a necessary evil. There's just *too much media*. They have to have an angle. They have to have a hook. They have to have figureheads. I just like being in my own little world of work and when I think it's good, I'll share it with people on my terms.

## ZEN ARCADIA

**M2: What's the story behind the e-mail address on your new album?**

Bob: It's a touch base for people to get ahold of us and in return they'll get some kind of update. I think it's just a means of buying time to set up a group somewhere. [laughs] If we can find someone to run it.

**M2: To have your own BBS or something?**

Bob: Yeah. There is one that exists right now in Berkeley [*it's ftp.csua.berkeley.edu —eds.*] There's about 250 people there but it's a closed group, so it's not like alt.music.alternative or something where people are just running wild. Ideally, it'd just be, "you've reached Sugarnet@aol.com. Here's a list of things going on in the next two months. I suggest you check out the following areas."

We're in the process of dedicating an area just to give people a place to hang out and to discuss things—not necessarily just Sugar stuff, but anything—'cause the open groups are pretty wild out there



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right now. I've been on for about a year and I very rarely post on anything, I just like to read the groups.

**M2: You're a lurker.**

Bob: I've seen when Courtney posts or when Stipe posts—everything just goes crazy. I don't want to have that effect on it. Even if I were to be posting regularly in the Sugar group that exists now, it would totally change the flow of the dialogue.

**M2: So, you wouldn't be participating yourself in any way?**

Bob: Well, I've tried doing the firsthand postings for Sugarnet. But what's happening is people are just sort of asking questions and other people are answering them, as opposed to directing them at me as the gatekeeper. I just feel that I don't want to become the official know-all just because it's centered around my work. People won't ask some of the other completists who know more about my work than I do. It's like, I don't want to interfere in that information movement.

**M2: When did you get interested in the Internet?**

Bob: I had primitive e-mail back in '86, when you had like a little Tandy 100 with couplers [laughs] and you try to drag that thing around. When Hüsker Dü was on Warner Brothers, I tried—there was a company out of Nashville that had a fairly primitive e-mail system and I just thought it was the biggest drag in the world. [laughs] Unfortunately, the company that brought me into wanting to use it, AOL, because it was icon-driven and so easy, it also dragged in the rest of the universe. [laughs] I think it's great that everyone's got access, but I don't know if it's supposed to be a toy. Like, "here we are in the information playground." [laughs]

**M2: What do you think about the issue of users "bootlegging" online?**

Bob: Oh, I knew that was coming. I think they should have—I don't know if respect is the word—but maybe have *tolerance* for the system that exists now. Corporations make these CDs and spend a lot of money promoting them. On the other hand, what people are doing with lo-fi stuff and homegrown music, making that stuff available through Bulletin Boards—whether it's through a crappy 386 box on your TV or whether it's through your computer, that's what it's coming to. Even when you go to shows, you'll get some kind of optical and make your own shirt on your printer. People aren't gonna want to carry that stuff around. I encourage it.

I think all the issues of copyrights... I mean, I think people need to be able to protect their work to some degree. I guess I'm from the old school where you know my published works are always copyrighted. [laughs] Now there's a whole new generation that's like "fuck the copyright!" I can understand that idea, because, hey, if it's out there, anyone should be able to have it, they

shouldn't be protected. But, you know, I'm from the old school and it's just a matter of pride. It's like, I created this, you know. When I go to the grave, I do want people to remember that it was mine. [laughs]

**M2: What kind of creative possibilities do you see with all this?**

Bob: Distribution, when they get data compression, when



fiber optics gets caught up with all this and everyone's more hooked together. Like a record of the month club where you can download the stuff straight—every month you could have a featured thing that goes out. [Aaagh! *The revenge of Columbia House!—eds.*]

The weirdest things out of this technology is like big studios have these satellites where you can do that stuff now. Then you have something like Aerosmith uploading their new debut song. [on CompuServe—eds.] It's like yeah, but 49 minutes to get the thing down? It's like forget it, man!

**M2: Yeah, but it doesn't really have to take that long. Sonic.Net did it before Aerosmith and it only took about ten minutes.**

Bob: But, see it's like really weird. I don't perceive Aerosmith as even having a clue or a concept as to what was going on with that. It was sort of like the message and the messengers were so out of whack on that one.

**M2: It was pretty screwed up.**

Bob: Yeah, I mean there are people who are way more knowledgeable who could be the messengers for this. When it becomes time and cost efficient and it can replace this huge distribution web, this physical trucking of CDs, when this technology becomes across-the-board available, when *everyone* has computers, then it will be feasible. It's tough, because I talk about the playground mentality when too many people get on. As everyone gets access to this form of dialogue—will it start to lower as it naturally will just because you're diluting it? I don't know. [laughs]

## MERRY EIFFEL TOWER HIGH

**M2: But you live in Austin now. Aren't you part of the cyberpunk crowd?**

Bob: I haven't seen much of that yet. I know that Austin is gadget happy as all get out. It's just that there's so much stuff going on down there, tech stuff. I remember when Mac was rolling out the PowerPC. I walked up there at the end of it and the place was totally packed.

It was like all these people with their cell phones running around, "Yeah, I hear Gates is online! The new Windows! And he's trying to take over the Eiffel Tower right as we speak!" I was just like, "I gotta go home. This is not my scene, obviously. This has gone a little too far." [laughs]

**M2: Have you been thinking about any kind of interactive songwriting?**

Bob: I just know the way I write music, it's a very insulated, very isolated, very personal thing. I think you *could* give people an opportunity to do that amongst themselves but it's still a ways away. Stuff isn't moving fast enough.

I think the dynamics of the idea of the cavemen gathering around the fire—which is what I call what Sugar does when we play in the traditional rock venue and have the lights and everything—I mean, there's going to be a new form of that, but I'm not sure what it is yet. You know, one of the problems that I keep running into is just how formalized what I do has become. How ritualized the idea that Sugar is a loud three-piece rock band.

**M2: You really feel limited by that.**

Bob: Yeah. It's like, beyond the content, what really makes it that different from the circus that rolled through three days before us? [pauses] The context is not all that different. I mean Sugar is the here and now. Sugar is not the future necessarily. Bands have a finite life—that's just how it is. **M2**

Adrian Belew  
Robert Fripp

Trey Gunn  
Tony Levin

Pat Mastelotto  
Bill Bruford

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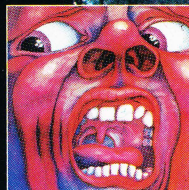
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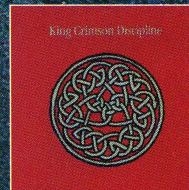
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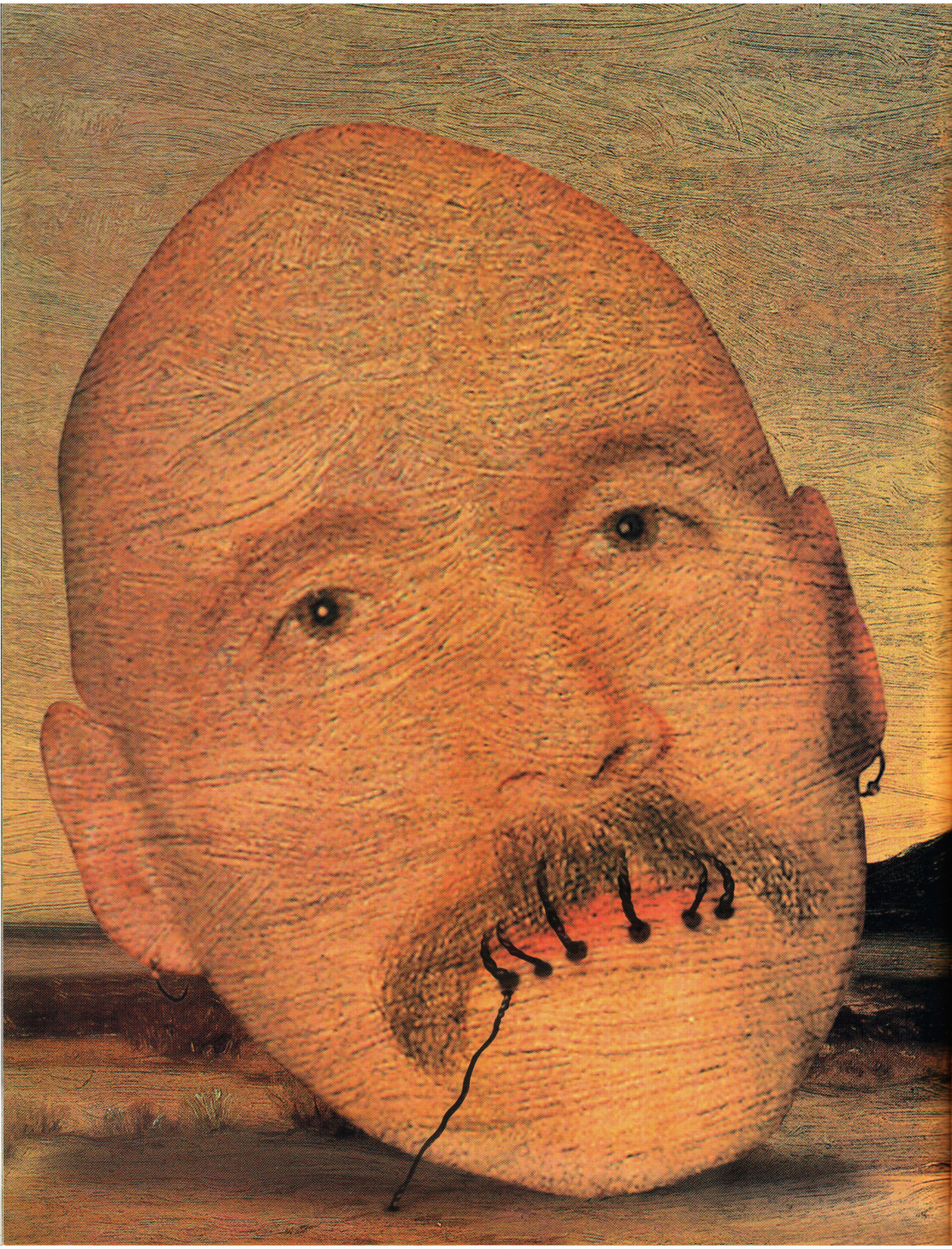
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The Concise King Crimson

CAROLINE







# BOB

BOB OSTERTAG • BOB O



By Jas Morgan & Paul McEnery  
Illustration by Heide Foley



AN AMERICAN  
SAMPLER

twisting into an infernal chorus fading into the Hawaiian twang of Paradise. Bob Ostertag's *Say No More* band is feeling playful tonight.

We live in a world where Ted Turner sets the copyright cops on Salman Rushdie for citing the Flintstones's theme song without permission. And Thomas McEvilly suggests that we feel "an ethical resistance" to art based on quotation because it diminishes "the idea of Romantic creativity... and the idea of the

**"The project will now go to phase three, in which I will blow this live recording into tiny bits and reassemble them into a new series of works on the computer. Then of course the band will learn those as well."**



**PHOTOS BY  
JESSE FISHER**

P  
D

Phil Minton hunches in the shape of a Pompeii lava man and shrieks like Pavarotti raised by laryngitic wolves. Mark Dresser at the stand-up bass is unflappability itself while Gerry Hemingway slips from agile irritation to downright fury at his drum kit. The electronic background wash is suffering moodswings, maternal sweetness

Soul." But Bob Ostertag has taken an art of quotation and transformed it into an art of resistance: a scream of protest against the iron heel of the system, against the oppression of El Salvador, against the repression of gay rights in California, and against the silencing hand of censorship.



More than other eclectic technicians turning tricks for the trade, Ostertag is the preeminent stylist of the new American craft of sampling. For the studio version of *Say No More*, he sent his three musicians (and extra drummer Joey Baron) off to make solo recordings, sampled the performances, and assembled their vocabularies into a micro-tonal patchwork. Then he called the musicians back and gave them the recording as a score for live performance. Amazingly, they hardly balked and took *Say No More in Person* out on the road. Ironically, after a close working relationship with artist David Wojnarowicz, the one of the NEA four who successfully sued Jesse Helms—for copyright infringement, of all things—Ostertag won an NEA grant to make new cloth out of the live performance. *Say No More 3* will join its clonal siblings on the rack later this year.

This is only one project out of a recent spate. Last year saw *All the Rage*, a theatrical piece featuring cut-up aural footage from the 1991 queer riots in San Francisco, where 20 or so black-shirts rise out of the stage to protect the Kronos Quartet from seemingly half the audience rising in protest. This is typical of Ostertag's insistence on music as chronicle. (One of his pieces is a heartbreaker, sampling the funeral oration of a Salvadoran boy, his father killed by the National Guard.) But there were also more abstract live collaborations with John Zorn and Fred Frith. And this year, for his "fierce queer dance record" *Fear No Love*, he's threading together the diverse talents of Tribe 8's Lynn Breedlove, Faith No More's Mike Patton, a chorus of four drag queens and—in spite of Ted Turner—Miss Uranus Trauma Flintstone.

**M2: Do the Burroughs/Gysin thoughts on cut-and-paste interest you or influence you?**

Bob Ostertag: Well, my recorded stuff, it's all about keeping stuff in context actually. Taking the recording of a Salvadoran boy and just letting it be a recording of a Salvadoran boy by using the sampling to get inside the sound and really encase you in a moment. The same with the riot things I did, *Burns Like Fire* and *All the Rage*. I have two lines I'm working on now with sampling. One is this documentary stuff. The other is collaborating with instrumentalists which is an interesting way to think about improvising. It's a way to use technology to blur the boundaries between improvising and composing. *Say No More* was about taking a musician and sitting him down in front of a mirror of himself. A twisted mirror, one that's bent out of shape a bit. Hearing instead of playing in a new way.

**M2: Improvisation as the hot line to God. The engineer does the devil's mopping up chore. You're transgressing those boundaries—what's going on here?**

Bob: Those kind of distinctions don't enter into it. With *Say No More* there were three main ideas. One was to find a way to write music for an ensemble that could use idiosyncratic extended performance techniques in a way that didn't require developing a notation system. All the notation systems I've seen, they're very artificial and clumsy and really end up inhibiting the performer. If I write using their own sounds, then I don't have to deal with notation. And since they made the sounds to begin with they should be able to make them a second time. So the idea is to use compositional techniques that are more often found in Musique Concrète or computer music and use them to compose for a live ensemble.

The second idea was to rearrange a little bit the relationship of composer to musician and make it a more two directional thing. I take directly from the player and I give it back to him and then he gives it back to me and so forth. And the third thing was the idea of the relationship of the musician to his own music. Those are the three dimensions I was trying to put together.

**M2: So exactly how easy is it for Joey Baron to play the first 30 seconds?**

Bob: [laughs] Well I don't know, he's never tried, he doesn't play in the live group. It's just Gerry.

**M2: So Gerry plays Joey?**

Bob: He plays it according to Gerry. It works out very well because Gerry's a real master of playing at low volumes but retaining his intensity. You want this almost thrash sort of energy. Gerry's a great drummer at how to do that. I mean it's really hard for all of them. When all of them heard it, their first reaction was, well, we can't do it.

#### SCOREKEEPING

**M2: Are there any kind of notational systems that help you to compare notes?**

Bob: Well, they wouldn't be able to do anything without the tape. The score is just a road map to get through the tape, so when they play, they know they've got eight bars of 5/4 and then a bar of this so it stays rhythmically together, but even then... When it's becoming a live version I just conduct. Because unless I'm cueing changes here and there, it's really impossible to keep it together. There's one section I couldn't think of anything to write and I just left it blank. [laughs]

**M2: So how does Phil Minton notate? "Sound like Yodeling Donald Duck"?**



**BOB OSTERTAG**

PM



## THE BALLOONS PULL ON THE GROMMETS

Bob: That's the way I wrote it. Phil's started off writing things like "duck scream" and things like that. He's got technical words for all that stuff. The duck sounds are "parabucchals." He's actually studied this. There's a whole technique for speaking that they teach to people who have no vocal chords, a way to speak using your teeth instead of your vocal chords. Those duck things are all singing without vocal chords.

**M2: Sounds like a political statement. How long did you keep them in the dungeon before they acquiesced?**

Bob: Well, Joey didn't do it, so I guess he wasn't in the dungeon long enough. The point is not to recreate what I did on the computer. The point is to use this as a starting point and come out of it with a piece that's really for a live band and it's not a piece that we could have made any other way. So the next step is, I take the individual tracks from the

live cut and cut those up on the computer and make a new computer CD out of it.

### CHRONICLES OF YOUTH

**M2: You need never write another new piece again as long as you live. In fact, you didn't write music for a long time.**

Bob: No, I left music for about 8 years, 1980-1988, and did various things having to do with El Salvador. I started out sort of as an organizer in the United States and I worked as a writer and a journalist, and I worked on everything from *The Chronicle* to *The Theoretical Journal of the New People's Army*...

**M2: We should arrange a trade subscription with them.**

Bob: ...and I was one of the founders of CISPES [*Coalition in Solidarity with the People of El Salvador*], and I was

their East Coast organizer for several years, and then they had me put out their newspaper, and then I had a big fight with them and went to El Salvador and starting working there.

**M2: Would it be rude to ask what the fight was about?**

Bob: It would be tiresome.

**M2: But we'll ask anyway.**

Bob: Well, you know, I was never a disciplined leftist. Gee, I never think of the right thing to say about it. It was all tangled and twisted in the politics of the moment. It's too beside the point. [laughs] But I still work with Sarah Miles a lot. She and I wrote a lot of articles together.

**M2: So what brought you back from Salvador?**

Bob: A lot of different things. I'd been doing it for eight years, and I was just emotionally exhausted. People I had known had been killed, and I was into it

to the point where I had to decide if this was what I was going to do for the rest of my life. And I do know North Americans who went there and they'll never come back. They're culturally no longer Americans. And some of them [laughs] are actually pretty close friends of mine and I respect that they did. And when it sort of got to that point with me, I thought no, there are some other things I want to do. And I'm not Salvadoran, and that sort of made me think about playing music again.

### HOW WE DID THINGS IN THE OLD DAYS

**M2: So what were you playing before the big break?**

Bob: The same.

**M2: Did they have the technology then?**

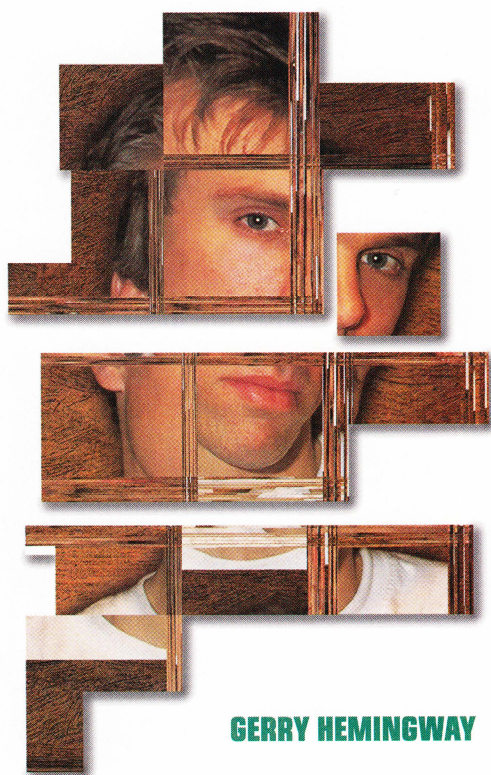
Bob: I, um, I had a mellotron that I made my own tapes for, which was practically impossible because they didn't want you to make your own tapes for it, so they made the tapes 3/4 of an inch wide and they put it on springs—they weren't actually looped. The springs were always breaking the tapes, you had to make your own tape because you can't buy 3/8 of an inch tape. I could never really get it to function properly. But I built other instruments. I built this one—sort of a pre-sampler—that worked pretty well. It had three reel-to-reel tape recorders and six helium balloons and a mixer.

**M2: How did that work?**

Bob: Do you have a pen? I could draw it for you. [lengthy explanation ensues] Got it so far?

**M2: So far, yeah.**

Bob: So there's two loops between the first and the second deck and the second and the third deck, then I rebuilt the middle tape recorder so I can vary the speed +/- 100%. So every time it goes through the loop it gets higher and higher, but sound that's being recorded on the middle tape deck is getting played back slower than it was recorded at, so it goes down. So if you just sang a note into a system, it would split, and if you just let the middle tape recorder stay at that slightly higher speed, it keeps splitting until it fills the whole audio spectrum. Since I'm changing the speed, I'm either taking in slack tape or putting out slack tape so I run the tape through grommets that I tie to helium balloons. The balloons pull on the grommets and they keep the tension constant on the tape. It makes a nice visual element because as the balloons go up, the sound is going up...



GERRY HEMINGWAY



**M2:** Wouldn't it have been easier to just inhale the helium?

Bob: [laughs] ... and that's something you just can't do on computer now. You have a unlimited memory per hour tape on there...

I used to do improvised gigs with Fred where I had a whole series of little cheap cassette recorders, each one modified to malfunction in a different way, and then I'd have a whole pile of telephone answering machine cassettes of various lengths, like 30 seconds, and I'd record on different cassettes and I'd swap them back and forth between machines. It's a way to screw up the sound. That's sort of like sampling without a sampler.

**M2:** Are you happier to have a real sampler then?

Bob: Oh very! [laughs]

**M2:** Why didn't you just pick up an electric guitar like everybody else?

Bob: I did, in junior high school. I wanted to be an orchestra conductor, so I spent a year playing a woodwind, then a year playing a string, then a year playing percussion—I never got around to brass, actually—and I also picked up an electric guitar and then I sort of got more and more interested in the foot pedals and things, and pretty soon the guitar was sort of beside the point.

When I came back to music I had to relearn the technology from scratch. In 1978, I had a Serge synthesizer which really forced you into radical ways of thinking about music. In 1988, I had never heard the word MIDI. I really had not paid attention at all. So I had to learn it all again. But on the other hand, samplers had taken Musique Concrète and blown it open. So that was where I decided to jump in.

**M2:** Sounds like it was an alternative to being a conductor. This way you don't have to pay the bloody orchestra.

Bob: [laughs] No, not quite. Even before I left I had my balloons and my mellotron, and none of the stuff I was doing was designed to emulate traditional instruments. In the early electronic music, it's the tape music I always find more interesting than the synthesizer music.

#### BREAKING THE BOARD BOOKS

**M2:** What's that keyboard you're using?

Bob: That's the prototype of an Ensoniq ASR10, which is the current Ensoniq. So I work with Ensoniq a bit [good product placement—eds.] I've used their samplers for a while. I know the engineers there and we talk. That's why it doesn't have any markings.

**M2:** Is there anything on your sampler that didn't make it to the commercial version?

Bob: Well I do employ their bugs. There were sections tonight where I was moving data from the hard disk through the RAM and I have it patched so while I'm feeding it the invalid parameters it makes it schizz off and go crazy. It gives me an interaction that I find more interesting than most digital stuff. Back in the 80's I used to use modular analog synthesizers, and in a way they were much more interactive and you could never quite predict exactly what they were going to do. With analog equipment you could always abuse it and make it do something interesting. Geez, we've plugged the output into the output plug, but hey, doesn't it sound cool? With computers, when you do something invalid, they tend to just crash, or do things that really aren't musically useful. But the cool thing about this sampler is that there are ways that you can force it out of balance that actually do musically interesting things.

**M2:** There's the old tale of the Beatles where they got all that great sound because they could make the needle on the VU meter go all the way over into the red. With digital equipment, the parameters are very much set. You're not supposed to break the rules because this is offering you more than there ever was. How do you break the rules?

Bob: It's a lot harder. Analog stuff—since you're working with an analog of the sound—the different ways you force it—if you make a machine do something that it's not supposed to, somehow or another you're working with an analog of the sound, you're not just getting garbage. So often with digital stuff, if you try to tinker you just get garbage.

I find that a lot of the problems I run into are the same problems you see written up in the business press about people who use computers in any kind of job. For example, it probably would take me 15 minutes to splice a loop together. Now I sit in front of a computer and push buttons and I have a loop, and I can push buttons again and get a slightly different version of it. Ah, that's not quite the right one, and I poke it again. By the time I've poked it 20 times, my ear's completely sick of it. I can't distinguish one from another. I think, ah, fuck it, I'll throw the whole thing out. And I don't make anything.

**M2:** I saw The Molecules come up with a solution. They just whipped off the cover and started hitting everything with a hammer.

Bob: That's not very digital anymore. [laughs] I miss the physical, the tactile part of it that more traditional instrumentalists get. I find the lack of physical things



PHIL MINTON



to do to be kind of a burden. I've got to use the time I spend doing things like splicing tape and physically arranging things because it's contemplative time for your brain.

**M2: So how would you design the interface between the meat and the tech?**

Bob: You know, I'd probably use existing instruments, because there's been hundred of years of development in them. I think saxophone mouthpieces are pretty interesting. It's amazing the amount of variables a good sax player can cook. I'm less interested in designing the instrument of the future than figuring out what to do with the ones we have now. *[laughs]* So what I was trying to do was make sure the music I make doesn't use the electronic instruments in a way that conventional instruments perform so much better. Really, they're so crude when it comes to really sculpting a sound in real time.

**M2: So if someone showed up at your doorstep and said, we'd like you design a project that would make the kind of noises you want out of a computer, would you jump at it?**

Bob: No. That's a decision I've made. I know in computer music circles there's a fairly prevalent attitude that says if you don't write your own code, you're not like serious about it. I find that being an engineer and being a musician are almost mutually incompatible things. I always try to position myself right *next* to the designer. In the 70's, I knew Serge Truitt and when I used the synthesizer. I talked with him a lot. I'd give him feedback and there were a couple of modules he designed that probably had to do with some feedback of mine. And now I use the Ensoniq, I know the engineers there. I have yet to hear music that was made on a computer by somebody who was also a programmer that made me think, um, *[big pause]* that it was worth it.

**M2: Any near misses?**

Bob: *[thoughtfully]* No. You get into like the academic computer music circle and if you're really serious about it, you write your own code. And those people talk to me and say if you don't write your own code, you're limited by what's commercially available. But I find, in my lifetime, I'm not even going to be able to experiment with half of the things that are commercially available. *[laughs]* You know, I spend too much time learning new software as it is—I should just stick with the software I have.

**M2: What sort of computer do you use?**

Bob: Homemade. I had a friend who was a Mac technician at a store, and he quit and they had a IIcx motherboard on the shelf, so he cut me a deal on that. And then dealing with different used Mac places, I put together a drive and a power supply and built it into a cardboard box. Now it's in a real box but that was the hard thing, because Apple doesn't want you to do this. A repair place won't sell you a part unless you can give the serial number of the computer it's going into. It took me a couple of months to piece together but... it was cheap.

There's a improvisational filmmaker I work with—Pierre Ebert. He and I do duos together. He thinks computers promote the idea that intelligence and creativity aren't connected to your body, and we're embarking for the first time on a path in which they're not.

**M2: I was told that you're getting involved with a new computer or a new keyboard or something.**

Bob: That's right, CNMAT here in Berkeley, which is the Center for New Music and Audio Technology. They have a system under development that's very sophisticated, very cool, post-sampling sampling.

**M2: Obviously you haven't played with this much yet. What sort of things will it do that you haven't been able to up 'til now?**

Bob: Well it creates this... it's hard to describe in terms that aren't overly technical, but it creates the equivalent of frames in a film so that if you play a sound and stop, when you stop playing, the sound doesn't stop, it sits right where you stopped, it's like a film would continue to show the one image. I don't know how to describe this system in a simple way...

**M2: You can give us a nonsimple way...**

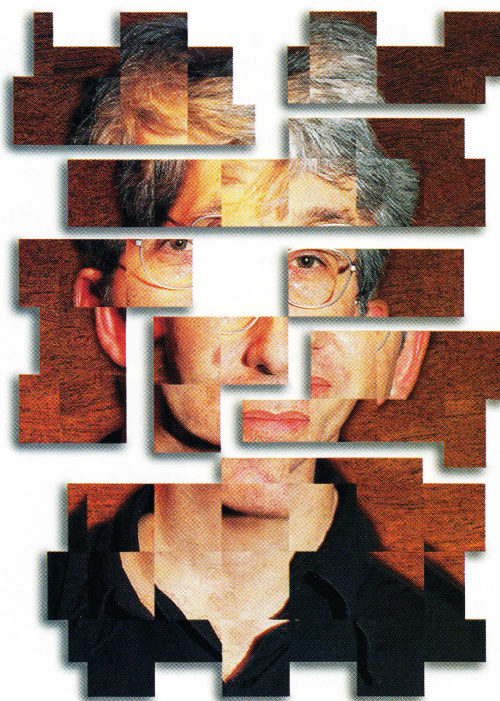
Bob: What they do is, you record a sound into the system and then you periodically create FFT—fast Fourier transform—slice analyses of the sound, and then you train artificial intelligence software on those images, and then your software creates the data between the images. And it means that you can store digital audio as a series of sine waves. And since you're doing that, you're not dealing with massive amounts of data like you are when you do digital audio, but you're dealing with actually small amounts of data that are highly manipulable, much more manipulable than audio.

**ONE STEP FORWARD, TWO STEPS BACK**

**M2: On another tack, is there any reason you haven't got into the dance movement?**

Bob: The next record *is* a dance record. It's the result of the fact that I got to feeling sort of schizophrenic because when I go on tour, all the musicians I play with are straight and, er, I'm gay, and all my friends are gay, and when I go off on tour I'm like in one world and when I come home and hang with my friends I'm in another.

**MARK DRESSER**





# Instant Futiques!

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**M2:** That's kind of what I was thinking. Your natural place would be down at the DV8 or something, and they're not playing what you play, so...

**Bob:** Well, that's a misconception, because if you think of some of the major gay figures in culture—we're talking like John Cage—it's a bit superficial to say my natural haunt. [laughs] It's going to have Fred playing guitar, and Joey Baron on drums, it's going to have a lot of my usual suspects in the band, and four drag queens who are going to sing, and it's called *Fear No Love*. It's very hard, I've never done anything like it.

**M2:** It's a tricky one to pull off. By the time you've got it done, everybody's moved on, it's a different beat.

**Bob:** It's a hard one to pull off, because if you look at my different records, each one I sort of created the form in the process of creating the piece, each one is its own little genre. The problem with dance music is it's such a fixed form it's hard to bring something to it that's special. I actually want to make a record that people will accept as a dance record, so in a way I have to yield to form more than anything I've ever done before. So it's really a clash between this form that is just so rhythmic and my own personal trajectory. It's really been a struggle.

**M2:** Well, at last the divide between interesting music and stuff you can dance to has collapsed.

**Bob:** One trap I want to avoid is that sometimes I find—there are several instances I can think of right off the bat, but I won't name any of them—in which somebody has come out of a very experimental tradition, does something popular, and they announce that it's important or a big deal because they're doing it. Whereas actually, the people who made that music did it ten times better ten years before. I probably think it's interesting on its own and it's just fine and doesn't need intellectuals to come make pronouncements about it. So I didn't want to do it unless I could figure out a way to really make a contribution to it that is mine. But trying to find a balance of the record that people will play at DV8 and it won't clear the floor... [laughs]

**M2:** We're looking forward to your MTV video.  
**Bob:** The video, I can tell you, will be stunning. **M2**

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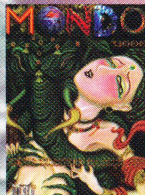
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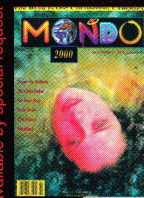
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Conspiracy Issue  
Smarter Drugs  
Techno Argot  
Henry Rollins  
David Byrne



**No. 8**  
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Daniel Johnston  
U2's The Edge  
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\*for the fine print enthusiast!



*continued from page 10*

in the realm of embedding encrypted data information within a digital bitmap of, well, anything. And within that realm, the advent of content addressable feature recognition within the fractalized, or fractal compressed, data of a digital image is very promising indeed.

The current technology, which has been utilized by the US Air Force, Navy, and various law enforcement agencies around the world, allows for a series of digital image files to be converted to a series of fractal equation sets which represent the original features within those images. This constitutes an automated feature detection scheme. The technique is remarkably robust in its ability to search for a particular face from a massive collection of stored digital images, or to perhaps recognize a

particular object from an aircraft or satellite surveillance photo.

What's important here is that a very similar technique can be modified for storing encrypted information in a "normal" digital image, which can later be extracted via a fractal set cognition process. I won't go into further details on this for now, but hey, why take my word for it?

If you are in fact interested in any of this, I strongly suggest you might want to visit the web site of the Naval Surface Weapon Center at <http://irisd.nswc.navy.mil>, and have a look at some of the technical documentation on fractalized digital image feature recognition. You might also want to examine some of technical papers published by Alan Sloan, Director of Strategic Products Development at Iterated Systems

(Norcross, GA), a manufacturer of this type of fractal image processing software. In particular, have a look at the article in the May '94 *Advanced Imaging* magazine, which highlights some of the work that the Air Force is developing along these lines.

Interested in glyphs, and glyphing scheme protocols, as they might apply to bit map feature sets? Hmmmm? OK, you might try to have a look at some of the work being performed by David L. Hecht at the Xerox Palo Alto Research Center.

But hey, let's just say that for those who are interested, and would at least like to know that they can hide below the grid, well it's your business. I know what I'm going to do to prepare. Do you?

*Charles Ostman*

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**From:** SKourim@aol.com  
**To:** editor@mondo2000.com  
**Subject:** Architecture

Nice article on the Tsui guy. Next time get a better architect. What a puss that guy was. Mr. Nature Happy World—Next time try Coop Himmelblau—They kick ass!

CHRIS

**Dear MONDO 2000**

Your articles warning readers about the new level of government surveillance tactics are very enlightening. However, an even more nefarious and sinister development is the use of electronic surveillance *implant* devices.

Electronic surveillance is under the purview of the Fourth Amendment of the United States Constitution (Katz versus United States, 1967,

United States Supreme Court ruling: which overturned Olmstead versus United States, 1928). The Fourth Amendment lists secure in body even before secure in building. The Germans have constitutional "bodily integrity" (West) German Spinal Tap Case and their Pneumoencephalograph Test Case, both 1963) to protect them.

If you think this is evil science fiction, check out the March 1995 issue of *Electronics Now*. The column "Hardware Hacker" by Don Lancaster then goes on to discuss the primitive state of the technology concerning true brain interface implant devices. What those implant victims are stuck with are not brain interface implants per se, but microminatured versions of standard electronic surveillance devices, e.g.,

the brainwave transmitter implant of Biotelemetry, Inc. (Cincinnati, Ohio).

*"It'll come at you so fast my friend  
 It's thank you and goodnight"*

—Paper Blood,

Emerson, Lake and Palmer.

Combine a subminiature (ca. 1982 technology) or a microminiature (current technology) implant middle ear receiver to ask the questions with a larynx microphone transmitter to get the answers. They have a "goodnight" interrogation system, i.e., a system to interrogate a victim while that person sleeps. Actually, the interrogation system can also be employed while the victim is awake by using subliminal techniques.

An added level of immorality over the use of electronic surveillance implant devices is the ability to mind-

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control victims. Through the use of microminiature implant middle ear receiver devices (stuck up through the eustachian tube into the middle ear), victims can be brainwashed during sleep and then subliminally cued when they are awake. Whoever brandishes the National Academy of Sciences (NAS) report stating that subliminal self-help tapes "have no proven value" (quotes are from *Radio-Electronic* magazine) needs to know that subliminal messages recorded on tape would be buried in normal tape noise upon playback. The NAS report on subliminal self-help tapes has no bearing on subliminal middle ear devices; since the transmitted materials at their source are not at subliminal levels.

By the way, there is a scenario warning the readers of *Electronics Now* that neatly parallels the two articles in issue #13 of MONDO 2000, concerning too much government surveillance intruding on the privacy of the people. The scenario starts off the March 1995 "Computer Connections" column by Jeff Holtzmann and is called "ÜberSoft Über Alles." Quite a coincidence!

*Yours very truly,  
Masao Kinoshita*

## Dear MONDO Editor,

This is in regard to one of the articles written by Alex Constantine regarding CIA use of electromagnetic guns. Now the editorial sounds a bit 'far fetched', but for those informed readers who read *COMPUTER WORLD* you'll notice the Jan 30, 1995 Vol 29 No. 5 has on the front page "Info-terrorist threat growing" and talks specifically about electromagnetic weapons being used as terrorist devices to destroy hardware and data. If it's on page 1 of *COMPUTER WORLD* do you really think that the 'Government Agencies' are unaware, or have not produced such weapons for their own use?

All of a sudden Alex's claims don't seem too far fetched any more do they? One has to wonder about an ex-CIA director who suddenly dies of a brain tumor the size of a golf ball.

Paranoid? You bet!

*Signed,  
Anonymous*

## Dear Mondo,

Thanks for the "DIY DTV" thing. It's real important that people learn how to take control of their own programs. The corporate machine grabs everyone with talent and slowly grinds it out of them. Hey, he's funny, give him a talk show, that oughta shut him up.

Meanwhile, things are getting pretty hairy out here in San Francisco. The city's sending men in orange flak jackets out to tear flyers down off telephone poles. Not only that but they're going after the venues and serving them with lawsuits. Don't for god's sake tell people what you're doing or we'll shut you down.

It just looks like the usual city bullshit until you look at the rest of the country. The government is trying to shut down PBS and NPR—as if they were any kind of threat. C'mon man, I need my animal porn to get me through the night. And then Marvel and DC made special deals with the distributors to put the squeeze on independent comics. And now that Viacom's buying up everything in sight from Blockbuster to Paramount, how much longer before they censor everything into total tapioca? Look at *The Lover*. 40 minutes shorter! Who'd watch it except to watch Jane March get all dewy? And then there's the corporations, taking over the Internet to put prices up through the roof.

Make way for a massive onslaught on freedom of expression. All the avenues of free speech are being closed down. Soon we'll have nothing



left but corporate culture. Hitler had the brownshirts, we've got the pink striped shirts. It's getting so you need that half million dollar advance to buy something better. It's the first rule of fascism. Control the entertainment of the masses and you control the whole shebang.

These idiots in the Senate don't even know how to spell Beavis and Butt-head. What are they going to miss? If they want censorship, let's shut down all the strip joints in D.C. Let's make filthy underwear illegal. Close all the whisky bars while Congress is in session. Make Newt Gingrich watch *The Love Connection* 24 hours a day. Hell, he'd probably like it.

So anyway, keep telling us about alternative transmission. And could you tell me how to get ten grand so I can do it myself?

Mark Noon

Haight Ashbury, San Francisco

From: feral@mail.utexas.edu

To: editor@mondo2000.com

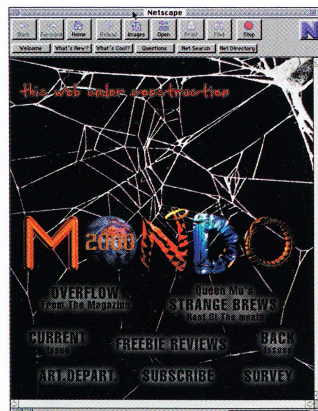
Subject: Hi!

WHY, OH DEAR GOD WHY doesn't Mondo 2000 have a Web Page? C'mon, pretty please? And not one of those half-assed, one-sentence-from-every-other-article pages, now. Oh yeah, and when the Hell are you puttin' out issue 14?????

That's all.

Feral

MONDO's website is currently under construction.



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# Vigor Mortis



by Paul McEnergy

## Pssst!

**Come over here. I've got something you need to hear. No, really, I'm not a crank. This is important.**

**We're changing our experience of the body. Not just you and me. Everyone. Now it's possible that we're talking about a mass male climacteric here. As a society. Have you noticed? We're watching more TV. Waists and butts are spreading. Sterility is up. You know? Sperm count's down the toilet. On the other hand, mass reproduction is on the increase. You see what I'm saying?**

The key is in the media. You get art for adolescents, you get violent upheaval and real ugly shit happens to the body. Check out the comic books. The levels of mindless mayhem go higher and higher. And don't even talk about *Doom*. Our culture's getting sucked into this big pink wadge of Bazooka Joe. Why? We're getting ready for the great leap forward.

The first wave was the Anonymous Horde of Aliens game, which, you know, this *Space Invader* shit is having a revival (like *The Horde* and *Shockwave*) but it's basically been passed by for other narrative strategies. The tip-off, the sign of the new

scheme, was the robot. Suddenly we were up to here in Transformers, RoboCops and Terminators. It's such an established trope now that it's almost invisible. Take a game like *Rise of the Robots*—it passes almost unremarked despite some gorgeous graphics and a nice T2 replica at the final level. That stage is over and done. We have met Data, and we have given him feelings. The threat of AI is already neutralized and humanized, okay? Believe that if you will.

We're already at the second pass through the hermeneutic loop, the phase of horror. If AI can be human, what are humans if not cyborgs? But, okay, Star

Trek, we're still repelling the Borg, so there's a different take, one that hides in the flesh. We're still talking about the Golem, but the figure we need to come to terms with is what came before the robot. I'll show you fear in a pair of chunky shoes and a bad haircut.

*Frankenstein: Through the Eyes of the Monster* (Interplay)—it's only the latest in an outpouring of horror titles. And don't think they're just cashing in on the goth market. You can't use a computer with nine inch nails. This is just the key to what's coming. It's an interactive movie, not that much different from any other walk through the maze and find out what's going on



before the villagers set you on fire kind of thing, except it features that perfect simulacrum of an actor, Tim Curry, who recapitulates his other role in a more conventional white coat. The important thing is the POV. The monster is *you*.

You don't see it yet? Let's scroll through all the styles of the genre. I'm skipping over the serial killers because it's too obvious. When you're exercising your thumb callouses, you might even be this cute blue hedgehog or an eco-conscious gorilla, it doesn't matter. You're Jason, Freddy, and Attila the Hun all wrapped up into one chainsaw-wielding maniac. And anyway, all the other classics of the big screen are well represented.

First Level: Zombies. This is straight out of Romero. *Corpsekiller* (Digital Pictures), you gotta offa lotta zombies—before you become one. The poison in your system is sapping your humanity and the clock is ticking. *Skullcrasher* (Cyberflix) is the urban version. You skateboard through the tombs and through malls of the Living Dead, assuming you can tell the difference. This one's down to green glop. And I can't move up until I mention *Hell* (Game Tek) where Dennis Hopper, who's already digitized, has to fight off the hordes of, well, you know.

Second Level: More Undead, this time using QuickTime to simulate real life. *Vampire's Kiss* (Digital Playground) takes on the shape of oral action from porn producers—"interactive graphics allow you to search for the secret passage... but beware of things that go hump in the night—they just might suck more than your blood." *Night Trap* (Digital Pictures) is now in revival as a Sega 32x cartridge and still quite rightly banned in England. This idea is already infecting enough young minds. There are zillions of Dracula spinoffs, particularly *Dark Stalkers* which you've probably seen late night at your local Burger King. Affecting the *Mortal Kombat* format, this has a complete array of incubi, succubi and creatures from the muck. The worst is when the Mummy, who never leaves his sarcophagus, drags you inside and pounds the crap out of you. And that's not the last we hear from Egypt. *Discis* and some other people I can only faintly remember are dragging us down into the tombs in search of... what? I meandered in dusty hallways trying to piece together some sort of... I'm sorry, I can't tell you anymore. It's a blank.

Third Level: the Haunted House. I don't need to point out the connotations of a specter walking hidden corridors and manipulating events. The parties

behind *7th Guest* have produced a sequel, *11th Hour* (Virgin Interactive). Your girlfriend has been spirited away to lure you into the mansion. In order to save her you have to endure all sorts of visceral frights and very irritating, apparently trivial puzzles. At the end, you discover you have been led up to the horrific climax: a moral decision. You think this is a joke, and sure, your character is supposed to be a journalist, but still...

Fourth Level: Extinction of Life As We Know It. The irritating puzzle feature is now endemic. Between you and me, there's a prize-winning goth game which consists of nothing else, but it's all rendered in homage to HR Giger to suck you in. In fact, Giger's getting pretty ubiquitous which I find interesting. One of the early brain-eating cthuloid games, *Darkseed* (Cyberdreams) featured his designs heavily and now it has a sequel coming out. And now, for Mac, PC, and 3DO there's *The Daedalus Encounter* (Mechadeus/Virgin). The game has comforting familiarity. You float around outside a spaceship in an environment like an FSOL video. The music is soothingly similar to techno tunes you've heard before. That even sounds like Ronnie Montrose playing the guitar. Inside, the ship has biomechanoid overtones. This is disconcerting. If you didn't find *Alien* the most terrifying horror movie of all time you probably are one, but these beasts turn out to be sanitized for your convenience. This is safety. This is not the true horror.

At the start of the game, in the first minute, before you can even activate the control pad, you get totally blown away. All right, that's perfectly normal for you. Other games have prepared you for this moment. But this time you don't get to hurl the 3DO across the room in disgust. This time they freeze dry your remains, pull your brain out of the debris, and

cyberneticize it. That's right. You're nothing more than a brain-in-a-box.

And for the rest of the game, you get to follow the ass of Tia Carrere around in circles while she gets damn friendly with some bastard in a goatie beard. Your one consolation is picking up swirly pink marbles (again those swirly pink marbles!) with your retractable metal grappler so as to stop the spaceship you're on from plummeting into the sun. Let it, is my advice. But you don't. And yet again, at the end of all the puzzles, at the end of all the travail, there's a Moral Choice.

There's an escalation here in these games, a drive to a specific purpose. But I can see that you don't yet understand my drift. Stay with me. I'll take you back to a game I played before I realized how I'd been tricked. A game called *Gadget* (Synergy). It calls itself an interactive movie. Sure. It's got all the appearance of interactivity. You strike up conversations with the inhabitants. Their replies don't make much sense, and every time you approach them, they just say the same thing over, but what's new? Apparently there's some conspiracy and it's up to you to save the earth. You wander around rooms, examining machines that have the strange reek of nostalgia. You play with them.

But soon you discover that you have as much room to maneuver as a rat in one of Skinner's mazes. You have to perform a variety of meaningless tasks in the correct order.

You're moved from one place to another on a succession of trains and planes, meeting the same people again and again. They all tell you about how they were forced to be part of this experiment, forced into interactions with strange mind control devices, beset on all sides with tiresome gnomish loonies and coerced into all the time hoping to make sense of the conspiracy and save the earth.

I couldn't tear myself away. I sat staring at the screen for what seemed like only minutes as the day rolled by. Eventually, the program stopped. Just for a minute. And then it started over.

Hey You! Pssst! Come over here. I've got something you need to hear. No, really, I'm not a crank. This is important. **ME**



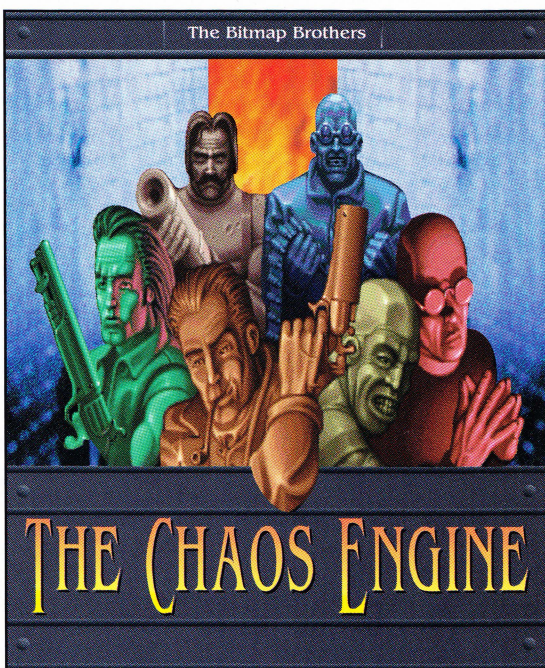


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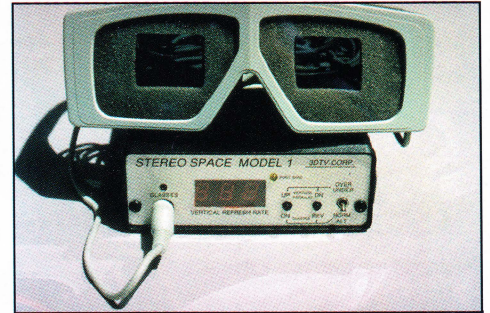
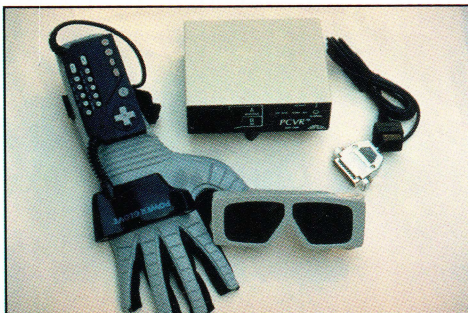
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